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Hawaii's Hospitals Past, Present  
and Future.



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# HAWAII'S HOSPITALS PAST, PRESENT AND FUTURE

by

RAYMOND G. NEBELUNG, DR. P.H.

and

ROBERT C. SCHMITT, M.A.



PUBLIC HEALTH COMMITTEE  
Chamber of Commerce of Honolulu  
Honolulu, Hawaii  
1948





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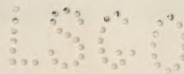
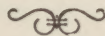
RAYMOND G. NEBELUNG, DR. P. H.

and

ROBERT C. SCHMITT, M. A.



With a Foreword by LYLE G. PHILLIPS, M. D.  
Chairman, Public Health Committee



PUBLIC HEALTH COMMITTEE  
Chamber of Commerce of Honolulu  
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HOSPITALS

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## FOREWORD

The present study of Hawaii's hospitals is an extension of three earlier works devoted to the same subject. The wartime *Survey of Honolulu Hospitals* by Rear Admiral Lucius W. Johnson, (MC), USN, was confined to Honolulu institutions which it analyzed in terms of hypothetically ideal bed ratios. That study contributed a number of recommendations for postwar hospital construction in the light of the standard ratios. Tables of basic data covered five hospitals for the decade ending in 1943. Summary data for the Territory for the year 1945 were contained in *Report, Survey of Hospitals and Nursing Homes, T. H., 1946*, by Elizabeth D. Bolles, issued by the Hospital Service Study Commission, Honolulu, in March 1947. Then, in February 1948, the Territorial Board of Health issued the *Report of Hospital Survey and Planning*, the work of W. B. Meister, M. D. This later work embraced all the major islands, and made recommendations largely in the light of present facilities and needs, with strong emphasis on questions of physical adequacy. Statistical data were confined to the year 1946

*Hawaii's Hospitals: Past, Present and Future* makes use of a much different approach. Detailed study is made of trends dating back two decades, and these are tied in with the early history of hospitalization in the Hawaiian Islands. An attempt is made to forecast future developments as far ahead as 1955. Thus the present work describes what *has been*, *is*, and *is likely to be*—not what *should be*. It supplements earlier studies by providing them with a statistical, factual foundation for their recommendations. In so doing it performs service as a reference book, aid to planning, and work of general analysis.

LYLE G. PHILLIPS, M.D.  
Chairman, Public Health Committee  
Chamber of Commerce of Honolulu



## ACKNOWLEDGMENTS

The cooperation of the librarians of Mabel Smyth Medical Library, the Library of Hawaii, and the Archives of Hawaii is hereby gratefully acknowledged. Thanks are due also to the Director of the Division of Hospital Planning of the Territorial Board of Health and the many hospital administrators who contributed data regarding their institutions.



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# HAWAII'S HOSPITALS

## PAST, PRESENT AND FUTURE

### Summary

As implied in its title, this study concerns the development of Hawaii's hospitals, from their earliest beginnings into the immediate future. Military hospitals, institutions for lepers, homes for the convalescent and feeble-minded, and the few small establishments not registered with the American Medical Association are omitted. The trends of the past two decades receive major emphasis. The approach is essentially statistical, by-passing considerations of structural adequacy or recommended standards.

Hospitals have existed in the Hawaiian Islands since 1837. In that year the American government opened a hospital in Waikiki for United States seamen, the first of several such establishments intended for mariners under various flags. In 1853, Dr. S. Porter Ford put City Hospital, Honolulu, into operation as the first civilian hospital in the Islands. It lasted only a few years, but was followed in 1859 by the royally-sponsored Queen's Hospital, which soon occupied a 124-bed building at the foot of Punchbowl hill. The Hawaiian government continued its work with the erection of Kalihi Hospital for lepers (1865), Oahu Insane Asylum (now Territorial Hospital) (1866), Kalaupapa Leper Settlement (1866), and a number of district (now county) hospitals, the first of which was Malulani (1884). Plantation hospitals were established in large numbers after 1886. The opening of two allied special hospitals, Kapiolani (1890) and Kauikeolani Children's (1909), soon followed. Leahi Home, the first hospital intended exclusively for tuberculous patients, opened in 1900. Military hospitals, with an Island history dating back to 1898, experienced a sudden expansion during World War II, when local facilities for both civilians and servicemen were strained.

During the last twenty years there has been little net change in the total number of hospitals in the Territory of Hawaii, despite some fluctuations, especially among the rural and small-town establishments. The number has been declining on the mainland.

In average capacity, Hawaii's hospitals have exhibited the same tendency toward expansion as is evident in mainland institutions. Local general hospitals averaged 59 beds in 1946 (United States establishments averaged 142). In 1947, the average was 191 beds in Honolulu and Hilo, and 40 beds in the non-metropolitan areas. Tuberculosis sanatoria averaged 257 beds in 1946, considerably more than such institutions in the States. "All others" (mental and allied special) were 333 in 1946 (569 on the mainland).

For a number of years hospital beds have been available for slightly less than one per cent of Hawaii's inhabitants. In 1946, there were just four beds per 1,000 population in general hospitals, although the ratio was much higher in the non-metropolitan areas. The figure for tuberculosis sanatoria was 2.3 per 1,000, and for "all other" hospitals, 2.7 (and increasing rapidly). The Territory lags behind the mainland in

general and "all other" beds, but is far ahead in facilities for tuberculous patients, largely because of the high incidence of this disease locally.

There has been a rapid rise in the number of bassinets reported by hospitals both locally and nationally. Of the 396 in Hawaii in 1947, 309 were in general hospitals.

Average census per 1,000 inhabitants—the proportion of the total population occupying hospital beds—has been somewhat lower in the Territory relative to the United States for a number of years. This difference may stem either from better health (and a younger population) or from reluctance in Hawaii to go to hospitals. In 1946, 6.5 persons per 1,000 were patients in Island hospitals on an average day, compared to 8.8 on the mainland. Patients were rather evenly divided among general, tuberculosis, and "all other" hospitals in Hawaii, thus surpassing institutions in the States in one category (tuberculosis, in which the Island rate is rather high) and falling behind in another ("all other"). The non-metropolitan general hospitals in the Territory exhibit somewhat higher ratios than the Honolulu and Hilo establishments.

The most crowded hospitals in the Islands are those in the "all other" (mental and allied special) category, followed by tuberculosis sanatoria and metropolitan general hospitals. The rural and small town general hospitals averaged only 49 per cent occupancy in 1947.

A higher ratio of admissions per 1,000 population is apparent in the Territory than on the continent. Locally, one out of eight persons entered a hospital in 1947. General hospitals admitted one out of ten, although the ratio has been higher for the rural and small town areas since 1932, probably because of the liberal plantation health policy. Of each 1,000 inhabitants in 1947, 1.6 (double the mainland rate) entered tuberculosis sanatoria and eighteen entered "all others."

Average length of stay has declined both nationally and in the Islands. The local figure for all general hospitals had fallen to 8.3 days by 1947, and even lower (8.1) for the non-metropolitan establishments. Average stays were higher on the mainland. The three allied special hospitals on Oahu have followed a similar trend, standing at 7.2 days in 1947. This trend has been influenced by new drugs and surgical techniques and early ambulation.

In Hawaii as elsewhere, an ever greater proportion of live births is occurring in hospitals. The percentage for the Islands in 1934 was 34.2, compared to 93.8 in 1947, a figure considerably higher than that for the States. Little difference was noted between rural and urban areas, largely because of widespread health education and enlightened industrial health policy throughout the Islands.

A correlational study of 1947 Island data showed that location in a large community, considerable bed

capacity, large average census, numerous admissions, high occupancy ratios, and high cost per patient day tended to go together. Average length of stay bore little relationship to these other factors.

A high degree of correlation was found between local economic conditions and both admissions and average length of stay. Non-metropolitan general hospitals (which are usually quite small) proved especially sensitive to fluctuations in the business cycle.

An analysis of hospital personnel indicated most extensive services to exist in the metropolitan establishments, where a long-term trend toward far more frequent laboratory and X-ray examinations and surgical operations was evident.

An analysis of statistics for the past two decades permitted some forecasts for the immediate future. Such

an extrapolation of recent trends indicated an increase in both average census and admissions (as expressed per 1,000 population) for general and "all other" hospitals, accompanied by a possible decline for tuberculosis sanatoria. Translated into bed needs by assumption of certain population and occupancy levels, these estimates indicate a total building program (beyond 1947 levels and exclusive of replacement requirements) of 213 to 463 beds by 1950 and 903 to 1483 beds by 1955. From 367 to 697 of the beds needed by 1955 should be earmarked for general hospitals, the rest for tuberculosis and other institutions. The magnitude of these needs is dictated by a rapidly increasing population and heightened use of hospital facilities by all groups on one hand, and by decreasing average length of stay on the other.

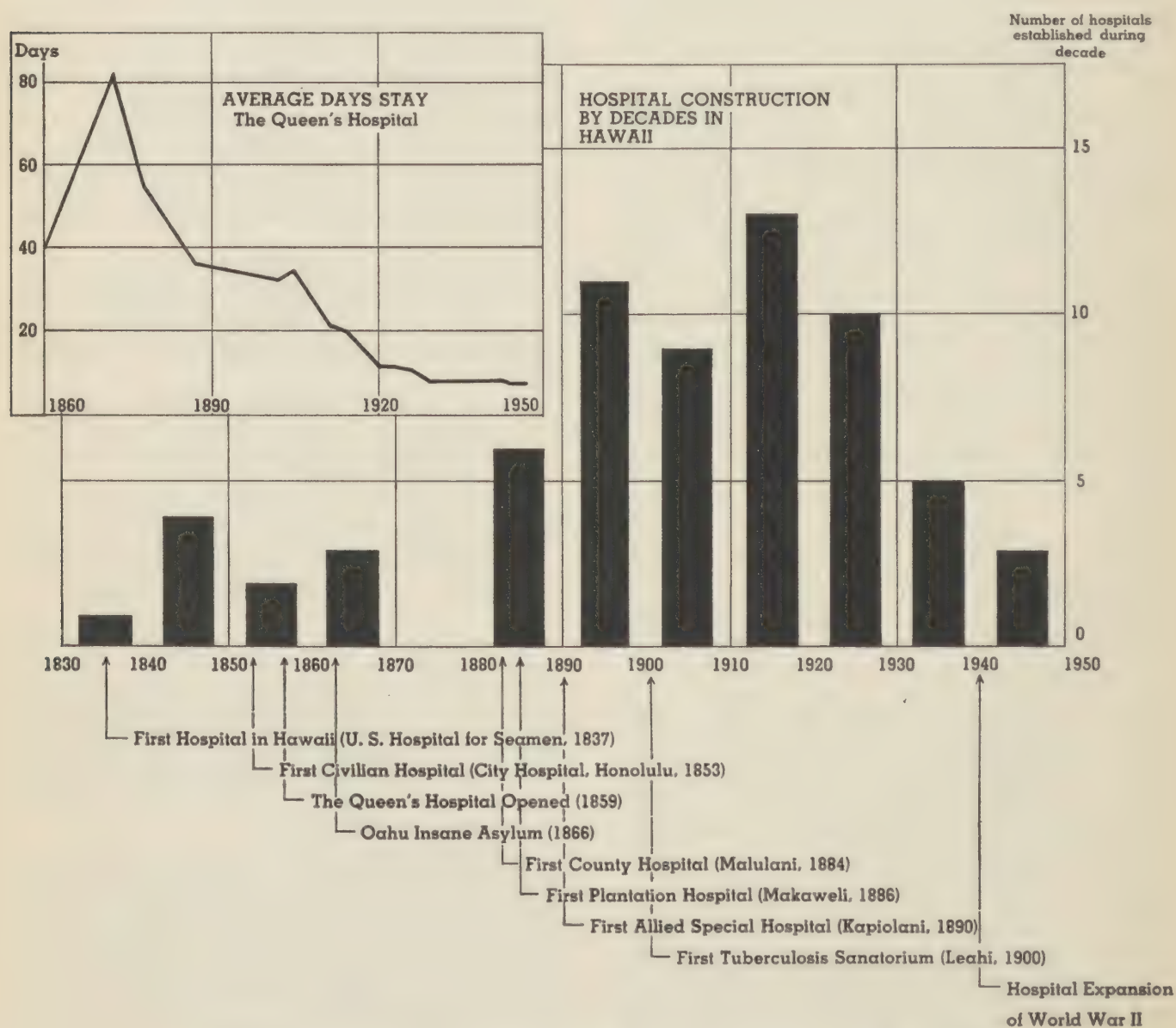


FIGURE 1—GROWTH OF HOSPITAL SERVICE IN HAWAII, 1837-1947

SOURCE: TABLES 1 AND 2.



# HAWAII'S HOSPITALS

## PAST, PRESENT AND FUTURE

### Scope and Purpose of Study

This study presents a history of the hospital movement in the Territory with a statistical review of the use of such facilities. Comparisons are made with mainland institutions merely to indicate trends.

No attempt has been made to determine hospital bed adequacy measured by arbitrary standards in number of beds per thousand population or in terms of construction.

Data have been presented to show primarily the growth of hospitals and the extent of their utilization by the public.

Attention is paid, in varying degrees, to all hospitals operated in the Hawaiian Islands, beginning with the earliest and continuing into the foreseeable future. Especial emphasis is given, however, to those institutions located in Honolulu.

Only those institutions which are registered with the American Medical Association, exclusive of military hospitals, establishments for leprosy patients, and such related institutions as Waimano Home for the Feeble-Minded and convalescent nursing homes, are considered.<sup>1</sup> Such a course was prescribed by limitations of time, data and needs. It was felt that military hospitals have little significance in the total Island hospital picture at the present time. Kalihi Receiving Station, Kalaupapa Settlement (both for lepers), Waimano Home and the various convalescent homes are likewise special problems which lie outside the scope of this study. The unregistered hospitals are small and often transitory, for the most part of negligible importance relative to the sum total of registered institutions; furthermore, data regarding them are almost impossible to obtain.

A period of two decades was covered, embracing two distinct business cycles<sup>2</sup> and a time of great scientific advance. In addition, a uniform series of data covering Hawaiian hospitals first became available during this time.<sup>3</sup>

For the most part, consideration was given only to the major types of hospital statistics: beds, admissions, average census, percentage of occupancy, average length of stay, bassinets and number of births. Supplementary tables on Honolulu hospitals go into much greater detail, but take in only the years 1934-1947.<sup>4</sup> Often it was necessary to estimate or compute some of the figures; this was particularly true of occupancy and average length of stay. Summary tables required a number of estimates for their component hospitals, especially for admissions data in earlier years. Such estimates were made by linear interpolation wherever possible; otherwise, comparisons were made with similar hospitals or preceding years.

This study should have value for reference, planning and general analysis.

There is a dearth of accessible, accurate reference material. Except in the case of The Queen's Hospital, historical information is scattered through old newspapers, unindexed reports and rare periodicals. Recent quantitative data are either inaccurate, incomplete, or not comparable. Much significant statistical information has never been published. A uniform, comparable listing of such data has been one of the objectives of this study.

It has long been known that social, demographic and economic factors have an important bearing on hospital facilities and services, but the exact role of these factors in their Island setting has been largely ignored. The present work attempts to correlate hospital data with socio-economic trends.

Intelligent planning for the future requires forecasting of probable developments. To make estimates for the immediate future—say, 1950 or 1955—it has been necessary to plot trends over the past twenty years, as a sort of statistical springboard. Once past relationships between hospital use and other factors are charted, a likely figure for the future can be proposed. Such forecasts can serve as a guide, a goal or a warning to interested parties.

### Historical Background

Before 1837 there was little in the way of true medical or hospital facilities in the Hawaiian Islands. Neither the native Hawaiians nor those persons who settled in the Islands following Captain Cook's voyage of discovery in 1778 were able to accomplish much along these lines. The first physicians came to the Islands after the arrival of the New England missionaries in 1820. Sick or injured British seamen were cared for in private homes or in saloons, at the expense of their government.<sup>5</sup>

The first real hospital in the Hawaiian Islands was put into operation in 1837. "A convenient establishment, at Waikiki, has been rented by the U. S. Consul, for the past year, for the accommodation of the seamen upon his hands," wrote John Diell, adding that

<sup>1</sup> An exception was made in the case of Kuakini Hospital, which was included in the totals even though not registered with the A.M.A. during the years 1941-1944.

<sup>2</sup> Peaks at 1928-1929, 1937, and the present; troughs at 1932-1933 and 1938-1939.

<sup>3</sup> With publication of the annual hospital number of the *Journal of the American Medical Association* for the year 1928. Earlier hospital numbers of the *Journal* had been confined to mainland institutions. These annual data are quoted in Tables 33-52.

<sup>4</sup> These years were chosen because the Honolulu tables, in their inception, merely brought up to date the tables contained in the report by Rear Admiral Lucius W. Johnson, MC, USN, "Survey of Honolulu Hospitals" (reprinted by the Public Health Committee from the *Hawaii Medical Journal* for November-December 1944). The Johnson report began its tables with 1934. See Tables 53-59.

<sup>5</sup> See J. Chas. Hyde Rooke, M.D., article in *The Friend of Temperance and Seamen*, Honolulu, July 1, 1844, p. 62f., and "Early Hawaiian Medicos," *Hawaiian Annual for 1933*, pp. 53-56.



"the situation of the sick has been far more comfortable than it was, when they were quartered in a grog shop, in the town, as was formerly the case."<sup>6</sup> This hospital admitted 266 patients in the five-year period ending March 31, 1844, of whom only ten died.<sup>7</sup>

Soon other seamen's hospitals were built. The "Hospital for English Seamen" was opened in April 1841 on the ewa-makai corner<sup>8</sup> of Nuuanu and King Streets. It occupied a drafty thatched hut next to "a common grog shop", and, during its first three years of operation, recorded an average census of 6.3 and an average length of stay of 92.6 days.<sup>9</sup> French Hospital was a small establishment opened about 1845 on the waikiki side of Smith Street at the Honolulu waterfront.<sup>10</sup> In 1846, when the American Hospital cared for 156 "inmates" and the British Hospital sixty-three, the French institution reported a total of only nine patients.<sup>11</sup> It apparently closed before 1855.<sup>12</sup> There is evidence of a U. S. Hospital in Lahaina, Maui, as early as 1845 and as late as 1860. Dr. Wetmore opened a hospital for American seamen on Ululani Street, Hilo, in 1855; it closed about 1863.<sup>13</sup>

These seamen's hospitals were given frequent changes of location. The English opened "Little Greenwich" in Pauoa Valley early in 1846. A considerable improvement over its downtown predecessor, it was nevertheless closed about 1848 in favor of another building on Waikiki Plains. The new establishment, "Little Britain," lasted five or six years, after which the English consul sent his charges to the American Hospital.<sup>14</sup> The U. S. Hospital in Honolulu was even more mobile: it occupied at least eight different sites between its founding in 1837 and closing after 1871.<sup>15</sup>

What appears to have been the first true civilian hospital in the Islands, the City Hospital, was opened in Honolulu in 1853. Its owner, Dr. S. Porter Ford, advertised extensively in local papers regarding the advantages of his "commodious building at the North end of King street . . . for the treatment of invalids, residents or strangers. It is conducted upon the plan of similar institutions in the United States, and offers a comfortable home during sickness . . ." Patients were "provided (if desired) with Private Rooms, at a moderate expense."<sup>16</sup>

After a few years Dr. Ford's chief competitor, the

Honolulu Marine Hospital (also called U. S. Hospital) once again had the field to itself. It advertised frequently, discarded its traditional emphasis on seafaring patients, and now offered rooms that were "large and well ventilated, and fitted up superior to any of the kind hitherto provided in Honolulu . . . , in the most salubrious part of the city." It was apparently the only hospital in the city between 1856 and 1859.<sup>17</sup>

Clearly, the Islands needed something more. Disease, poverty and a declining birth rate had reduced the population of Hawaii (then inhabited almost wholly by native Hawaiians) from approximately 300,000 in 1778 to 124,449 in 1832, then still further to 73,138 in 1853.<sup>18</sup> Marine hospitals intended for foreign sailors and small proprietary establishments obviously were not the answer. Adequate facilities, an ample program of care for the medically indigent (a term then applicable to a large proportion of the natives), and extensive health education were needed.

Quite suddenly, a movement to remedy this situation swept the Hawaiian kingdom, beginning with Kamehameha IV (then aged 25) and quickly embracing a large number of enthusiasts and donors. As early as May 14, 1859, *The Friend* reported: "For a long time the necessity of a Public Hospital has been seriously felt in Honolulu. This necessity has been felt by foreigners as well as natives. While Honolulu, for more than a quarter of a century, has not been without its hospitals for American and British seamen, still those have not fully met the necessities of the public. While many have felt kindly disposed towards the enterprise, the great cost of erecting and sustaining such establishments has been hitherto an unsurpassable obstacle. Even that, it is now confidently hoped, will be overcome. Our youthful King and Queen, taking a favorable view of the subject, have been pleased to take the initiative steps. His Majesty, rightly imagining that no one could more successfully than himself collect funds for this project, goes forth among his people. The subscriptions obtained, as now published, are the happy results of this effort of His Majesty."

Once determined to build a hospital, the backers of the project proceeded with all possible speed. Even before completion of the fund drive, and almost a year before they could lay the cornerstone of the permanent building, the trustees took steps to open a temporary structure to serve as an interim hospital. In the first biennial report of Queen's Hospital, its physician, Dr. Wm. Hillebrand, reported:

The Queen's Hospital commenced its operations August 1st, 1859. It had been decided by the Board of Trustees, in one of its first meetings, to hire a suitable building for a limited time, in order to open a dispensary forthwith, where indigent sick natives should receive gratuitous advice and remedies, and where also should be received such of them as were severely ill, as house patients, so far as the capabilities of the house would admit.<sup>19</sup>

. . . We remained [in the temporary hospital at the foot of King St.] until March 1860, when we removed to the grounds purchased by the Board of Trustees for the erection of the

<sup>6</sup> "Sketch of Honolulu, Oahu," *Hawaiian Spectator*, Vol. 1, No. 2, April 1838, pp. 86-87.

<sup>7</sup> Dr. R. W. Wood, in *The Friend, of Temperance and Seamen*, Honolulu, July 1, 1844, p. 62f.

<sup>8</sup> In Honolulu, the four directions are "ewa" (toward Ewa Plantation, NWW of town), "waikiki" (toward Waikiki Beach, east or southeast of downtown Honolulu), "mauka" (toward the mountains) and "makai" (toward the ocean).

<sup>9</sup> Dr. J. Chas. Hyde Rooke, *loc. cit.*, and map published in *The Friend*, October 1, 1845.

<sup>10</sup> *Ibid.*

<sup>11</sup> *The Friend*, January 15, 1847, p. 12.

<sup>12</sup> No further mention can be found of French Hospital after 1847.

<sup>13</sup> These establishments are referred to in *The Friend*, December 1, 1845 and August 1, 1860, and in N. H. Lyman, *History of Haili Church, 1824-1942*, pp. 38 f.

<sup>14</sup> See *The Friend* for December 1, 1845, August 1, 1846, January 15, 1847 and August 1, 1860.

<sup>15</sup> See *The Friend* for October 1, 1845, January 15, 1847, March 1, 1855, January 1, 1857 and December 2, 1871; *The Polynesian* for March 31, 1855; and the *Hawaiian Gazette* for June 16, 1866 and January 4, 1871; and the *Pacific Commercial Advertiser*, March 6, 1869. These sites are listed in Table 1.

<sup>16</sup> *Polynesian*, Honolulu, October 15, 1853, February 17, 1855 and September 22, 1855.

<sup>17</sup> *The Friend*, March 1, 1855, and *The Polynesian*, March 31, 1855.

<sup>18</sup> Data from Romanzo Adams, *Interracial Marriage in Hawaii* (New York, 1937), p. 8.

<sup>19</sup> On September 3, 1859, *The Friend* reported: "Over one hundred patients have received medical advice and treatment from the dispensary, and there are averaging ten boarding inmates."



permanent Hospital, and entered the old wooden building, which we still use as a special ward for female patients. . . . While the first building had only room for eighteen patients, we could now accommodate twenty-four. In this building we remained until December, when we were enabled to establish ourselves permanently in the fine stone building erected at the foot of Punchbowl hill.<sup>20</sup>

The cornerstone of The Queen's was laid with considerable pomp and panoply. "On Tuesday 17th July [1860], this imposing ceremony was performed by His Majesty the King, in person, according to the ritual of the Masonic Order, of which His Majesty is a P.M."<sup>21</sup> The new building had 124 beds, later reduced to ninety.<sup>22</sup>

The hospital filled a definite community need almost at once, but not all the good effects of its operation were immediately discernible. King Kamehameha IV, its founder, failed rapidly in health, and, despite the comforting presence of the hospital, died at the age of 29.<sup>23</sup> The total population continued its decline until 1875, when there were only 55,347 persons in the islands.<sup>24</sup> The pure Hawaiian element never did reverse this trend, and continued to suffer the highest death rate in Hawaii.<sup>25</sup>

The year-to-year record of The Queen's, Hawaii's oldest and largest civilian hospital, presents an accurate picture of progress in medical science and health education during the past eighty-nine years. The average number of patients in the hospital was only 19 during the first two years of its existence, but by 1872 had risen beyond seventy. The average census surpassed 100 for the first time in 1918, then continued increasing until it achieved the World War II peak of 308 in 1942. Yearly admissions, about 150 at first, hovered in the neighborhood of 500 during the last quarter of the century. Then, in 1910 admissions passed one thousand, in 1920 they stood at 3,858, in 1930 at 6,850, and in 1945 at more than fifteen thousand. More and more children were born in hospitals: from fewer than two hundred live births in 1923 reported by The Queen's, the figure soared to the 1947 mark of 2,106. Finally—and perhaps most significantly—the average length of stay of The Queen's patients declined from over 80 days in 1872 to 34 days in 1905, 12 days in 1925, and fewer than eight days since 1944.<sup>26</sup>

Once general hospital facilities were provided for Honolulu, the government turned its attention to leprosy. This disease, introduced into the islands some years before, had developed into a major health problem. Kalihi Hospital was set up several miles from downtown Honolulu as a receiving station for lepers in November 1865.<sup>27</sup> An almost inaccessible peninsula

jutting from beneath Molokai's cliffs was reserved as a leper colony, and called Kalaupapa Settlement. It was opened on January 6, 1866.<sup>28</sup> The Branch Leper Hospital was established "at Kakaako, or Fisherman's Point, . . . about a mile from the business center of Honolulu. . . . December 12, 1881."<sup>29</sup> Branch Hospital was closed toward the end of the century, and Kalihi and Kalaupapa, although still in use, reported progressively less use of their facilities. Leprosy seemed to be of relatively negligible importance as a public health problem by 1948.

Oahu Insane Asylum (the present-day Territorial Hospital) was opened by the Hawaiian government in 1866. "Previous to the year 1862, the mentally afflicted were sent to jail to mingle with the felons and prisoners of all kinds; they were treated simply as dangerous characters to be kept away from the public; and it was not until this date (1862) that the question was raised of setting aside a place for their care. . . . In 1862, after some agitation, an act was passed by the Legislature authorizing the Minister of the Interior to provide lands and buildings suitable for the care and management of the insane and to call for appropriations necessary for their construction and maintenance. However, . . . it was not till September 1866 that the matter was accomplished and then the few (six) insane were removed from the prison to the asylum and placed under the care of Dr. Ford, Superintendent, and Mr. Davison, Assistant Superintendent."<sup>30</sup> In 1930, Territorial Hospital was shifted from its old location in Honolulu, where it offered 524 beds, to more spacious quarters on Windward Oahu, but the average census more than kept pace with augmented capacity.<sup>31</sup>

The incidence of smallpox, introduced in 1853,<sup>32</sup> again reached epidemic proportions, so that in 1881 a special Small-Pox Hospital was set up in Honolulu. A house of detention was converted to temporary hospital use for the duration of the epidemic, reaching a maximum census of 131 and admitting 575 persons in this period. After approximately a year of operation it was possible to close this establishment.<sup>33</sup>

It was during the 1880s that the Hawaiian government began extending hospital service to the outlying islands. Formerly, these areas had known only the U. S. Hospitals built for American seamen at Lahaina and Hilo. Malulani Hospital was established at Wailuku, Maui, in 1884; Koloa Cottage Hospital ("a small hospital and diet kitchen"), at Koloa, Kauai, in 1888; and Hilo Memorial Hospital, on the Big Island, in 1897. Malulani reported a census of 14 patients on March 31, 1892; at the same time, Koloa reported a census of two. The latter establishment had no patients for two years, and was closed by the Board of Health (1903), which thereafter subsidized nearby Elele Hospital.<sup>34</sup> By mid-1904 the Territorial Board

<sup>20</sup>*The Polynesian*, Honolulu, June 29, 1861.

<sup>21</sup>*The Friend*, August 1, 1860.

<sup>22</sup>*The Polynesian*, June 29, 1861 and L. Vernon Briggs, *Experiences of a Medical Student in Honolulu, and On the Island of Oahu, 1881* (Boston, 1926), p. 9.

<sup>23</sup>*Thrum's Hawaiian Annual and Statistical Guide*, 1946, p. 221.

<sup>24</sup>Romanzo Adams, *loc. cit.*

<sup>25</sup>By July 1, 1947, there were only 10,761 pure Hawaiians in the Territory, comprising 2.0 per cent of the total population of the Islands. These Hawaiians had the highest infant death rate, maternal death rate, and overall crude death rate of any ethnic group in the Territory (from *Annual Report of the Board of Health*, T. H., 1947).

<sup>26</sup>Data from Table 2 and Figure 1. Average length of stay was 42 days in the years 1859-1861; the increase during the next two decades probably stemmed from intensive educational efforts directed toward the native Hawaiians, who at first were rather reluctant to spend long periods confined to a hospital ward.

<sup>27</sup>From *Report of the Board of Health to the Legislature of 1866*, p. 3.

<sup>28</sup>*Honolulu Almanac and Directory, 1886* (Honolulu, 1886), p. 90.

<sup>29</sup>*Ibid.*, p. 91.

<sup>30</sup>*Report of the President of the Board of Health from November 10th, 1900, to February 1st, 1901*, pp. 27-28.

<sup>31</sup>See annual data listed in Appendix (Tables 33-52).

<sup>32</sup>See L. Vernon Briggs, *op. cit.*, pp. 3-6.

<sup>33</sup>*Report of the President of the Board of Health to the Legislative Assembly of 1882*, p. 20f.

<sup>34</sup>*Reports of the President of the Board of Health for 1886* (Appendix 4, p. 22), 1888 (p. 27f), 1892 (p. 44f), 1897 (p. 11), 1902 (p. 173, p. 301), and 1903 (p. 115).



of Health was supporting or subsidizing nine institutions (exclusive of those concerned with leprosy).<sup>35</sup>

The turn of the century witnessed the local beginnings of hospitals designed especially for maternity cases, children, and tuberculous patients. Kapiolani Maternity and Gynecological Hospital was founded in June, 1890 by the Hawaiian queen after whom it is named. First located at the corner of Makiki and Beretania Streets, Honolulu, it was intended "to propagate and perpetuate the race".<sup>36</sup> Kauhakeolani Children's Hospital was formally opened in Honolulu on Thanksgiving Day, 1909.<sup>37</sup> Shriners Hospital for Crippled Children, Honolulu, was established in 1923, and its present quarters were put into use on November 27, 1930.<sup>38</sup> Leahi Hospital, then known as the Home for Incurables, was established in April 1900.<sup>39</sup> Leahi was the first specialized institution for tuberculous patients in Hawaii, and was followed by three similar hospitals on other islands: Maui County Farm and Sanatorium at Kula, Maui, in 1910; Puumaile Hospital at Hilo, Hawaii, in 1912; and Samuel Mahelona Hospital at Kapaa, Kauai, in 1917.<sup>40</sup>

After two thirds of a century of Hawaiian hospital history the emphasis began turning away from government operation. Most of the early hospitals in the islands had been both built and operated by the government. The seamen's hospitals had been financed by the consuls of foreign nations. The Queen's Hospital was in large measure initiated by the ruling monarchs of the time, and until 1898, it was partly supported by biennial legislative grants.<sup>41</sup> Facilities for persons afflicted with leprosy, insanity, smallpox and tuberculosis were provided by the Kingdom or Territory. Only the long-defunct City Hospital had operated independently of government supervision or subsidy. Finally, however, conditions warranted a change. Plantations, large and isolated as they had become, found it more convenient to establish hospitals on the premises. The booming cities of the Islands attracted a number of individuals and corporations willing to invest in medical facilities. Churches, already experienced in operating related institutions in Hawaii, eventually turned toward the building of hospitals.<sup>42</sup> Several of the "district" hospitals established or partly supported by the Kingdom or Republic of Hawaii either reverted back to private hands (as with Lihue Hospital) or disappeared completely (as in the case of Koloa).

Plantation hospitals were soon erected on all the major islands.<sup>43</sup> On Oahu such hospitals were estab-

lished at Ewa, Waialua, Waipahu and Aiea during the 1890s. On the Big Island, Hamakua Mill Company led the way with its hospital at Paauilo in 1892, to be followed by similar facilities at Haina and Olaa eight years later. On Maui, the first plantation hospitals of record were opened at Paia (1906) and Lahaina (1908). Five were established on Kauai before 1900, two of them (Makaweli and Kilauea) in the late '80s.<sup>44</sup> The building of plantation hospitals had reached its peak by the end of World War I, and their number has been declining ever since. Mortality was highest on Kauai. Of six such ventures known to have been started there, none survived in 1948.

Corporations, churches and individuals also established a number of hospitals in Hawaii during these years. Two of the largest were general hospitals in Honolulu, Japanese and Saint Francis. Japanese Hospital was established April 12, 1900, and intended largely for persons of that ancestry. During World War II it changed both its name (to Kuakini) and policy of admissions.<sup>45</sup> Saint Francis Hospital opened under church auspices on May 9, 1927.<sup>46</sup> In Hilo and elsewhere, small hospitals were established by individuals. By the middle '30s, most hospitals in the Territory (including those on plantations) were operated by non-profit associations.

Military hospitals were the last type to appear in Hawaii, experiencing rapid growth in the relatively few years since their establishment. Tripler, the oldest, dates from 1907, although the nucleus around which it was built carried back to 1898, the year of Hawaii's annexation.<sup>47</sup> The 26th Station Hospital, Schofield Barracks, is variously assigned two dates, 1909 and 1929.<sup>48</sup> The U. S. Naval Hospital at Pearl Harbor was built during the first year of World War I.<sup>49</sup> Its neighboring naval hospital in Aiea Heights was commissioned a quarter of a century later.<sup>50</sup>

The most recent major developments in Hawaii's hospital history occurred early in the recent war. The unprecedented influx of servicemen after the Pearl Harbor attack strained medical facilities to the breaking point, and existing military hospitals soon were forced to extend their wards many miles. School buildings were converted, wings added, and temporary structures hastily erected.<sup>51</sup> Civilian hospitals operated at 100 per cent occupancy a large part of the time. Sacred Hearts Convent became a spacious civilian emergency hospital almost overnight. It was a period of extraordinary dislocations, but, for the most part, its effects on local hospital facilities and services seem to have been temporary.<sup>52</sup>

<sup>35</sup>Report of the President of the Board of Health of the Territory of Hawaii for the Year Ending June 30, 1904, pp. 67, 76-82.

<sup>36</sup>Oahu Health Council Bulletin, September 1947, p. 2.

<sup>37</sup>Thrum's Hawaiian Almanac and Annual for 1910, p. 180f.

<sup>38</sup>American Hospital Directory, 1946, and Thrum's Hawaiian Annual for 1931, p. 117.

<sup>39</sup>Thrum's Hawaiian Almanac and Annual for 1910, p. 205, and American and Canadian Hospitals, 2d ed.

<sup>40</sup>Report of the President of the Board of Health, T. H., for the 12 Months Ended June 30, 1911, p. 203f.; American Hospital Directory, 1946. All three of these sanatoria are now operated by county governments.

<sup>41</sup>"The Queen's Hospital," Thrum's Hawaiian Annual for 1925, p. 97.

<sup>42</sup>Malulani Hospital, for example, was operated by the Franciscan Sisters for the Kingdom of Hawaii (Reports of the President of the Board of Health to the Legislative Assemblies of 1884, p. 9, and 1886, p. 17).

<sup>43</sup>Of the eight major islands, only the two smallest have never had a hospital of any type (Niihau and Kahoolawe).

<sup>44</sup>"Hospital Service in the United States," *Journal of the A.M.A.* (92:1117, 94:987, and 96:1085) and *American and Canadian Hospitals*, 2d ed.

<sup>45</sup>Thrum's Hawaiian Almanac and Annual for 1903, p. 191, and Oahu Health Council Bulletin, July 1947, p. 2.

<sup>46</sup>Biennial Report, 1945-1946, St. Francis Hospital, p. 1.

<sup>47</sup>*American and Canadian Hospitals*, 2d ed. See also Buck Buchwach, "The New Tripler," *Honolulu Advertiser Sunday Polynesian*, September 5, 1948. The hospital was moved to new and larger (1500 beds) quarters in 1948.

<sup>48</sup>*The Journal of the A.M.A.* (92:1117, 94:987, and 96:1085) gives 1909. *American and Canadian Hospitals*, 2d ed., and a questionnaire returned by the hospital give 1929.

<sup>49</sup>*The Journal of the A.M.A.* (92:1117, 94:987, and 96:1085).

<sup>50</sup>Oahu Health Council Bulletin, February 1948, p. 3.

<sup>51</sup>See Buck Buchwach, *op. cit.*

<sup>52</sup>A complete listing of hospitals in the Hawaiian Islands, by location and years of operation, is given in Table 1.



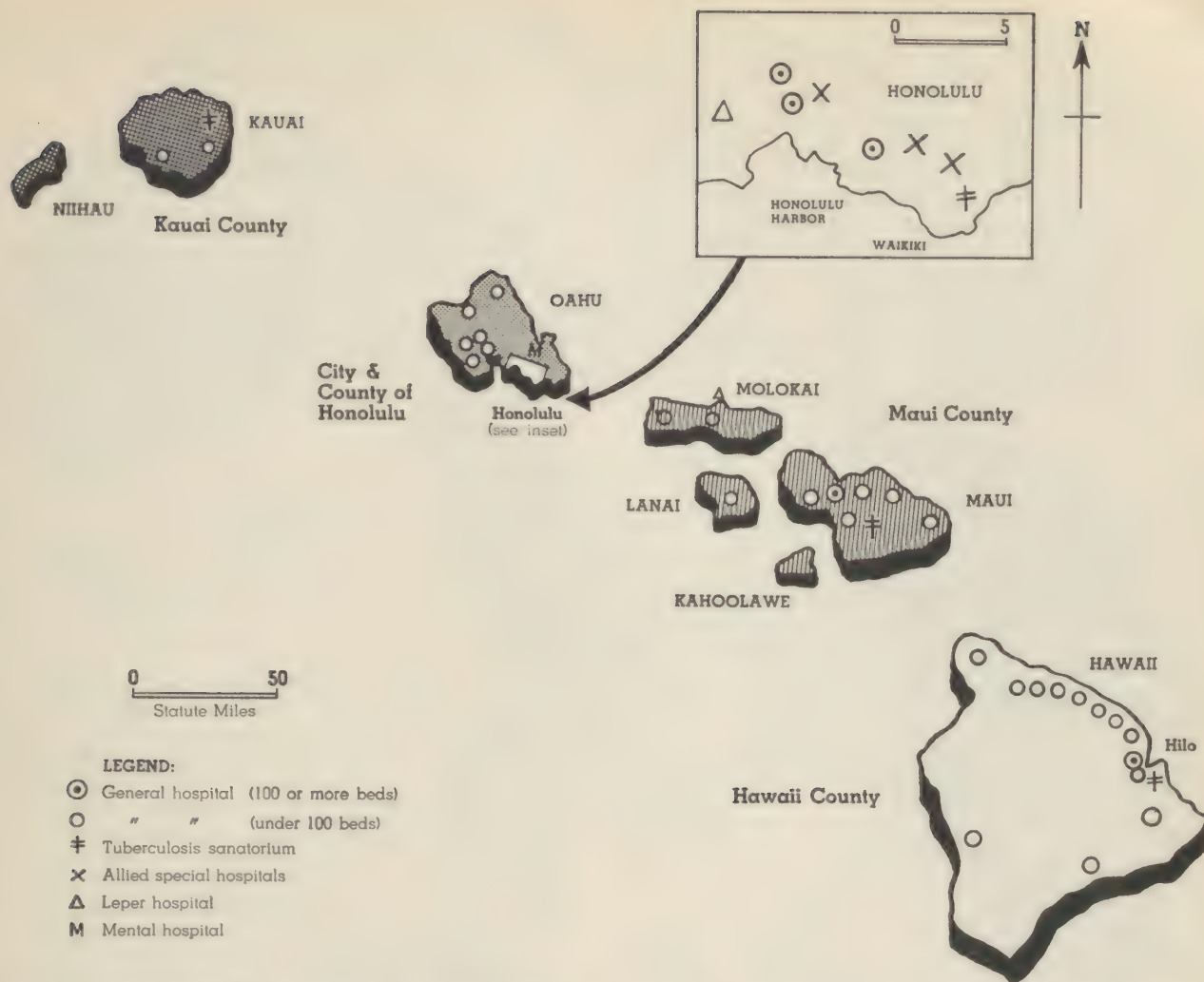


FIGURE 2—LOCATION OF HOSPITALS, TERRITORY OF HAWAII, 1947 (EXCLUSIVE OF MILITARY HOSPITALS, WAIMANO HOME, AND ESTABLISHMENTS NOT REGISTERED WITH THE A.M.A., 1946)

SOURCE: TERRITORIAL BOARD OF HEALTH DATA (SEE TABLE 52).

## Hawaii's Hospital Facilities

### *Number of hospitals*

In recent years the Hawaiian Islands have enjoyed a full complement of major hospital facilities. At the end of 1947 there were 41 non-military registered<sup>63</sup> hospitals in the Territory and a number of unregistered smaller general hospitals and convalescent rest homes. Of the 41 registered hospitals mentioned above, 33 were general hospitals (five of them in Honolulu and Hilo, the rest in small towns and rural areas), four were tuberculosis sanatoria, and children's, maternity, orthopedic and mental hospitals numbered one each.

The national trend toward fewer hospitals has not been followed locally. In the continental United States, the total number of hospitals declined from 1928 to 1937, then began a rise which was not reversed until 1943; since then the number has de-

creased.<sup>64</sup> Registered civilian hospitals in the Territory of Hawaii totaled slightly over forty in the late 1920s, middle and late '30s, and in the middle '40s. Despite the trough of 1930 and 1931, and the peak of 1940-1943, therefore, the total number of hospitals in the Islands has not changed appreciably during the entire two-decade period of this study.

What local variations have occurred during these twenty years have been most apparent in the group of non-metropolitan general hospitals. The number of tuberculosis sanatoria has remained constant at four, one to each county. Allied special hospitals in the Islands have numbered three since the A.M.A. registration of Shriners' in 1931.<sup>65</sup> Territorial Hospital has been the only institution to serve mental patients for quite some time. The four registered general hospitals

<sup>64</sup>It is reasonable to expect an early rise in total hospitals in the United States in view of the Federal hospital construction program.

<sup>65</sup>Shriners' Hospital for Crippled Children, while not precisely an allied special hospital, has been so classified in this study for statistical purposes.

<sup>63</sup>Registered with the A.M.A. (1946 listing; the 1947 listing had not appeared when this was written. See Table 52a.)



in the two largest cities of the Territory, Honolulu and Hilo, in 1928, have experienced a net increase of only one since then. Outside these cities, however, many changes have occurred. The small-town and rural general hospitals—consisting of various plantation, county and privately-owned institutions—have ranged from 24 in the early 1930s to 37 in 1940. They were about one-tenth less numerous in 1947 than in 1928. It should be pointed out, incidentally, that general hospitals on the mainland are now slightly more numerous than twenty years ago, despite considerable decline in the middle 1930s.

Total number of hospitals for the mainland and the islands is given by year and by type in Table 3. Hospital construction by decades is given in Fig. 1. The location of hospitals in 1947 is shown in Fig. 2.

### *Average Capacity of Hospitals*

The average Island hospital has always been considerably smaller than its mainland counterpart, but it has exhibited the same long-term trend toward expansion. Hospitals in the continental United States averaged 131 beds in 1928, when local institutions averaged 68. By 1946, the national figure had almost doubled, at 234, compared to an Island average of 103. Thus Hawaii's hospitals were, on the whole, less than half as large, and grew in average capacity at a somewhat slower pace.

General hospitals in the Territory have followed much the same course relative to the mainland. The average local general hospital had a capacity of 41 beds in 1928, compared to a mainland average of 83. Average size increased more rapidly nationally than locally, so that by 1946 general hospitals in Hawaii had 59 beds, against the 142 in the States.

As would be expected, the metropolitan general hospitals in the islands are far larger than those in small towns and rural areas. The former have increased, with a fair degree of regularity, from an average capacity of 125 beds in 1928 to 191 beds in 1947. The non-metropolitan general hospitals have grown from an average size of 30 beds in 1928 to 43 during the war and 40 in 1947. At present Kauai County leads in average size of general hospitals, followed by Maui County, rural Oahu, and rural Hawaii, in that order. For many years, before a number of Kauai establishments closed their doors, Maui County was the leader, followed by rural Oahu, Kauai, and rural Hawaii.

The Territory of Hawaii surpasses the mainland, however, in the average capacity of its tuberculosis sanatoria. During the period 1928–1946, sanatoria in the continental United States grew from 122 to 185 beds average capacity; local tuberculosis hospitals, in the same years, increased from 203 to 257 beds average size (297 in 1947). The differential in size is a fair index of difference in need.

In both average capacity and rate of growth, all other local hospitals lag behind their mainland equivalents. During the years under consideration, such establishments in the states ranged from an average of 239 beds in 1928 to 569 in 1946; in the Territory, the range was from 184 in 1931 to 333 in 1946, and 354 in 1947. Locally, this group consisted of the allied special institutions and the mental hospital at Kaneohe.

Average bed capacity of local and mainland hospi-

tals, by year and by type of service, is contained in Tables 4 and 5. Detailed Island data listing number of institutions in each size category are given in Table 6.

### *Total Beds*

The hospitals of the Hawaiian Archipelago, like those of the mainland, have steadily increased in total bed capacity during the past two decades. In the latter, total beds have increased from 893,000 to 1,469,000 in the period of study, with a temporary wartime peak of 1,739,000. Total beds in the Territory numbered 2845 in 1928, 4687 in 1947.

Both nationally and locally, this increase in beds has been spread among the various major types of hospital. In general hospitals, the continental growth from 363,000 to 641,000 beds between 1928 and 1946 has been paralleled by a similar expansion (1944 to 2064) in local general beds. Beds in tuberculosis sanatoria were increasing from 812 to 1027 in Hawaii at the same time they were rising from 62,000 to 83,000 on the mainland. In "all other" hospitals, the total beds in the Islands mushroomed from 600 in 1928 to 1333 eighteen years later, as compared to a corresponding mainland growth from 467,000 to 744,000. Yearly data are cited in Table 7.

Among local general hospitals, those located in the two largest cities have added beds much more rapidly than those in small towns and rural areas. The metropolitan institutions almost doubled total capacity between 1928 and 1947, rising from 500 to 953 beds. The non-metropolitan total of 933 beds in 1928 had grown to only 1130 by 1947, after a Depression low of 805 and a short-lived wartime high of 1360. Among the non-metropolitan areas, only Kauai County has lost beds. Rural Oahu, in two decades, increased from 180 to 223 general beds; rural Hawaii, from 235 to 314; and Maui County, from 316 to 473. The high hospital mortality on Kauai, however, reduced total general beds from 202 to 120. Complete information is given in Table 8.

Data on total bed capacity gain added significance when expressed as a ratio of total population.<sup>66</sup> In total beds per 1,000 inhabitants, the mainland has outdistanced Hawaii; the former was somewhat behind in 1928, with 7.4 beds per 1,000, against the Territory's 8.2, but by 1946 was well ahead, 10.4 to 8.5. The Island figure has ranged from a low of 7.6 beds per 1,000 population in 1930 to a 1940 high of 9.5. In 1947, the Territory could tally 8.9 beds for each thousand persons, enough to serve slightly less than one per cent of the population at any one time.

Much the same trend has been apparent in general bed capacity per 1,000 inhabitants. Nationally, there were 3.0 such beds in 1928, 4.5 in 1946; during the same time, the figure for the Islands fell from 4.1 to 4.0, despite some violent fluctuations in the 1930s and early 1940s. Surprisingly enough, small town and rural facilities have been considerably more extensive than those in Honolulu and Hilo. General beds in the two large cities have ranged from 2.7 to 4.0 per 1,000, standing at 3.2 in 1947; non-metropolitan general beds have numbered 3.7 per 1,000 at their lowest, 5.9 at their highest, and 5.0 in 1947.

<sup>66</sup>Population data from Territorial Board of Health (see Table 61) and *Statistical Abstract of the United States, 1947*.



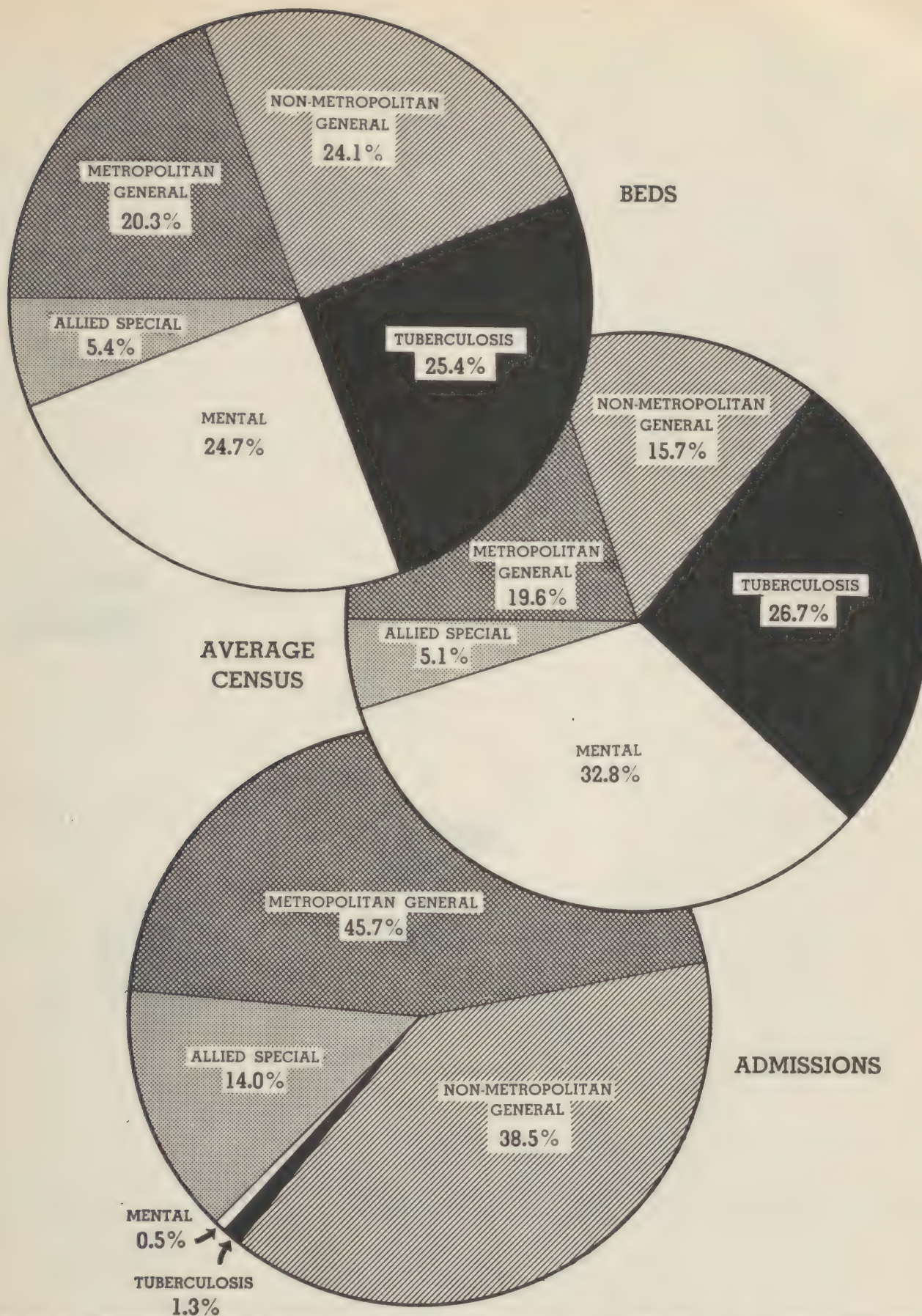


FIGURE 3—DISTRIBUTION OF TOTAL BEDS, AVERAGE CENSUS, AND ADMISSIONS, BY TYPE OF HOSPITAL, TERRITORY OF HAWAII, 1947

SOURCE: CALCULATED FROM TABLE 52b.

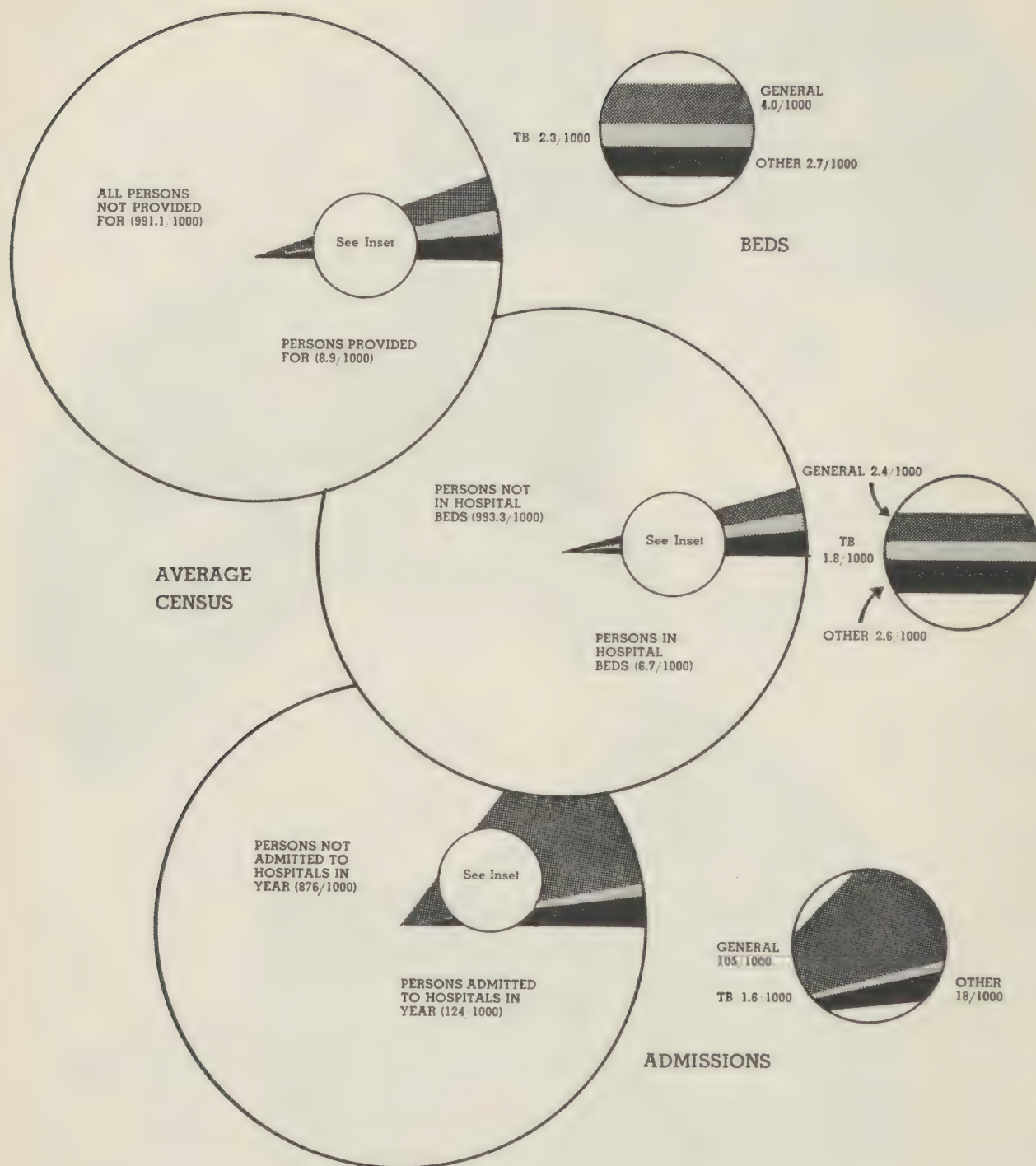


FIGURE 4—PROPORTION OF POPULATION PROVIDED WITH HOSPITAL BEDS, OCCUPYING HOSPITAL BEDS, AND ADMITTED (ANNUALLY) TO HOSPITALS, BY TYPE OF HOSPITAL, TERRITORY OF HAWAII, 1947<sup>1</sup>

SOURCE: TABLES 52b AND 61.

Size of arcs somewhat exaggerated for graphic purposes.



The Territory has consistently maintained relatively more beds for tuberculous patients than can be found in the 48 states. Latest figures show 0.6 beds per 1,000 persons on the mainland, in contrast to 2.3 in the Territory. Neither area has witnessed significant change during the last twenty years. The Island tuberculosis rate has exceeded the mainland rate for a number of decades.

Considerable expansion has occurred among all other hospitals. In the continental United States, there were 3.9 beds per 1,000 inhabitants in 1928, 5.3 in 1946; in Hawaii, there were 1.7 such beds in 1928, 2.7 in 1947.

Total beds per 1,000 population information is listed in Table 9.

Bassinet capacity—a topic closely related to number of beds—has increased rapidly in Hawaii. Only 67 bassinets were reported in 1928, of which 57 were in general hospitals.<sup>57</sup> In 1947, almost 400 were reported, of which 309 were in general hospitals. This trend has roughly paralleled events on the mainland, except that local increases have been, percentage-wise, of much greater magnitude. Between 1928 and 1946, total bassinets in institutions on the continent increased from 43,313 to 84,145, most of them in general hospitals. The ratio of metropolitan to non-metropolitan bassinets in the Islands has changed but little during the period under study. Data on total bassinets are given in Tables 10 and 11.

## Hospital Service Statistics

### *Average Census*

The total number of persons occupying hospital beds at any one time has been steadily rising both in the Islands and in the continental United States. In 1929, when average census data first became available for Hawaii, there was a daily average of 2080 persons in local hospitals. By 1947, this figure had risen to 3541, the highest in local medical history. On the mainland, meanwhile, the number had increased from 703,000 in 1928, to 1,239,000 in 1946.

This growth in average daily census has become apparent for all major types of hospital. Among Hawaii's general hospitals, the average census was 824 in 1929, 1252 in 1947. The four county tuberculosis sanatoria averaged a total of 696 patients at the earlier date, 947 a year ago. For all other hospitals in the Territory, the average census had risen from 560 to 1342 during the period. These trends mirrored similar developments in the States, except that there the growth was considerably faster among general hospitals and much slower in tuberculosis sanatoria.

In the Islands, general hospitals in Honolulu and Hilo have witnessed greater increases in average daily census than their non-metropolitan counterparts. Rural and small town general hospitals have fluctuated widely since 1929, ranging from a low average census of 450 in 1931 to a high of 707 in 1940. In 1929, these institutions totaled an average census of 504, compared to a 1947 total of 557. The metropolitan general hospitals have maintained a rather steady growth, and their total average census has gone from 320 in 1929 to 695 (the high to date) in 1947. Three of the non-metropolitan subdivisions have experienced mild

increases between the two years, while Kauai County has declined (106 to 75). In 1947, Maui County had a total average general hospital census of 215; rural Hawaii, 155; rural Oahu, 112; and Kauai County, 75.

Total average census per 1,000 population has been somewhat lower in the Territory relative to the United States for a number of years. In other words, a greater percentage of the population on the mainland could be found in hospitals at any one time than was the case with the population of the Islands. Of each 1,000 persons on the mainland in 1929, just six occupied hospital beds at any one time, compared to a local figure of 5.8. In the year following World War II, 8.8 persons per 1,000 were in hospitals on an average day on the continent, in contrast to the 6.5 patients in Hawaii. It cannot be said whether this difference is a result of less need for hospitalization among islanders (in turn dependent upon a younger population or more healthful climate) or of greater unwillingness or inability to take advantage of hospital facilities when need arises.

There are interesting variations in the pattern of general hospital use. In 1929, the average daily census of Hawaii's general hospitals relative to population was appreciably above the mainland figure (2.3 compared to 1.9 per 1,000 inhabitants). The situation was reversed during the war years, and in 1946 the continental United States ratio was 3.5, that of the Territory still only 2.3. The overall Island data have changed little throughout the years. The only major contrasts have appeared between metropolitan and non-metropolitan institutions. Rural and small town general hospitals counted an average census of 2.5 per 1,000 population in 1947, 0.2 more than the metropolitan hospitals—an advantage held in like or larger degree every year (except 1942–1944) since 1932. Normally, urban service establishments (retail as well as medical) exert an influence far beyond the city limits, thereby resulting in a higher per capita usage than that scored by rural and small town establishments; but this is not the case with hospitals in Hawaii. Plantation health policies toward personnel have been largely responsible for this differential.

Neither local nor mainland tuberculosis sanatoria have changed in their relative service since the late 1920s. Such institutions in the States had a total average census of 0.4 per 1,000 population in 1929 and again in 1946. The respective Territorial figures were 1.9 and 1.8. The typical Island resident was thus more than four times as likely to be found in a tuberculosis sanatorium as the average mainland resident.

All other hospitals (maternity, mental, and the like) served a much greater proportion of persons in the States than in Hawaii in the past two decades. In 1929, these institutions had an average daily census of 3.6 persons per 1,000 population on the mainland, 1.6 in the Islands. In 1946, the corresponding figures were 4.8 and 2.4.

From these data can be deduced a person's chances of occupying a hospital bed at any given time. If he lives in one of the 48 states, he has nine chances in a thousand, of which almost five are that his hospital will be neither a general nor a tuberculosis institution. If he resides in the Hawaiian Islands, his chances are less than seven in a thousand, almost equally divided among general, tuberculosis, and "all other" hospitals.

<sup>57</sup>There is some evidence of incomplete reporting.



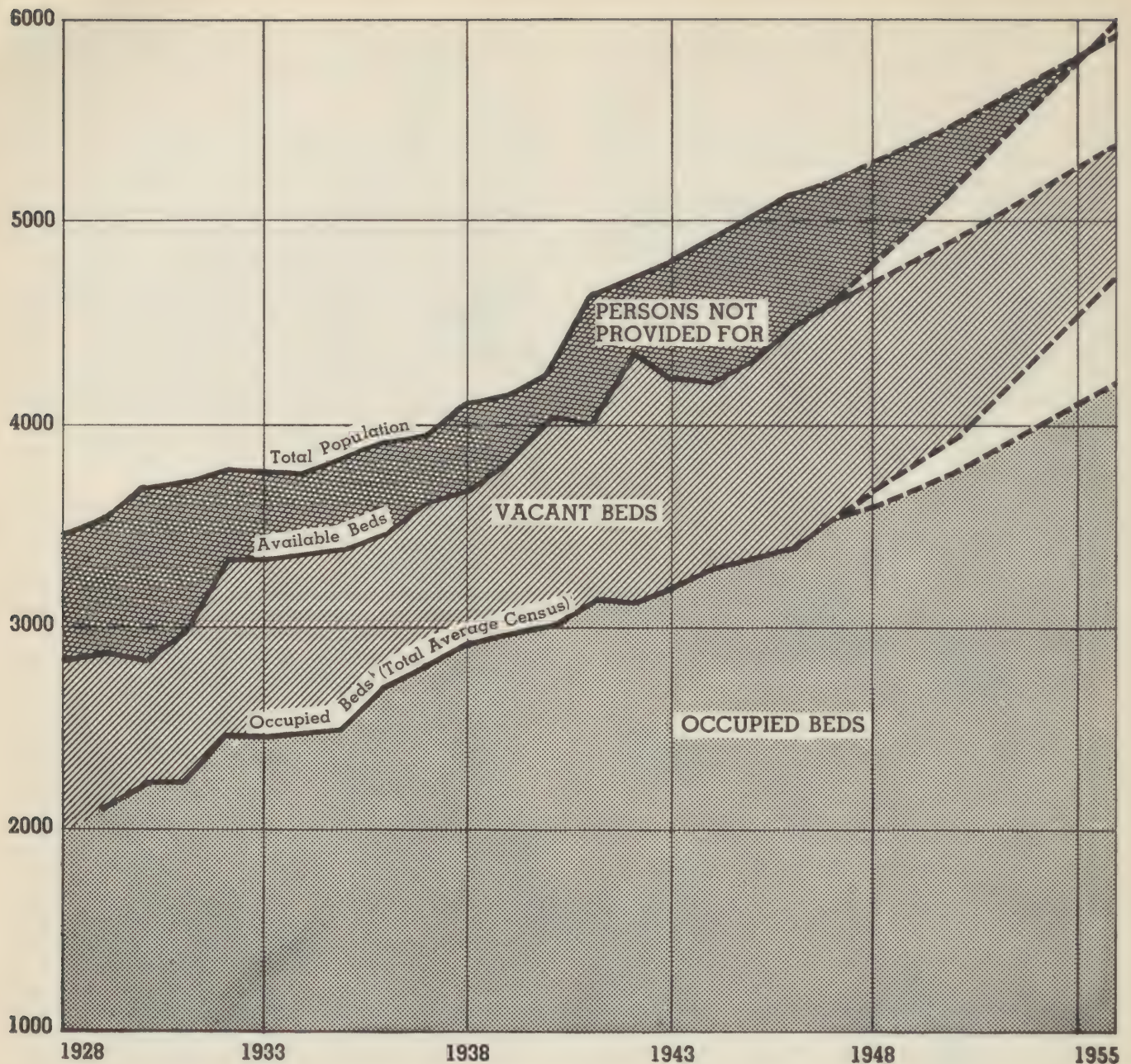


FIGURE 5—TRENDS IN POPULATION<sup>1</sup> OF ISLANDS AND AVAILABLE BEDS AND AVERAGE CENSUS OF ALL HOSPITALS, TERRITORY OF HAWAII, 1928-1955<sup>2</sup>

<sup>1</sup>For graphic purposes population expressed as one-hundredth of actual total.

<sup>2</sup>Actual 1928-1947, "high" and "low" estimates for 1948-1955.

SOURCE: TABLES 7, 12 AND 61.

Average census data are given in Tables 12, 13 and 14, and in Figs. 3, 4 and 5.

#### Percentage Occupancy

Percentage occupancy is relatively limited in meaning. A high rate may indicate either a high level of hospital usage (due to high morbidity or unusual ability or willingness to utilize facilities with normal needs) or a low level of bed capacity (relative to typical needs). A low rate may indicate, conversely, either

exceptionally little usage (despite average needs) or overexpansion of facilities.

In recent years, overall bed occupancy rates for the mainland have been several points above those for island establishments. The local percentage occupancy has ranged from 72 to 80, the most recent figure (1947) lying at 76. The continental United States figure, within the past two decades, has lain between 75.1 in 1944 and 84.4 in 1946.

Much the same generalization applies to general



hospitals. The most recently available data give the States an average occupancy of 77.4 per cent (highest in the whole period); the Islands, 60 per cent. The mainland low, 59.9 per cent, was reached in 1933. Occupancy in Hawaii has ranged between 56 and 66 per cent.

Great differences exist between metropolitan and non-metropolitan general hospitals in the Islands. In 1947, Honolulu and Hilo general hospitals had an average occupancy of 73 per cent; all other general hospitals, of 49 per cent. Although the difference was less marked in earlier years, it has been a pretty regular one. For many years, rural Hawaii had the lowest occupancy (40 to 56 per cent). In 1947, Kauai County was first with 62 per cent; rural Oahu, second with 50 per cent; rural Hawaii, third with 49 per cent; and Maui County, last with 45 per cent. The war years, which witnessed the highest occupancy rates in Honolulu and Hilo (mostly the former), found the greatest decline in the non-metropolitan regions. These variations in occupancy rates can be explained in large measure by population pressures. Furthermore, a lower average percentage occupancy is char-

acteristic of small hospitals like those found in non-metropolitan Hawaii.<sup>68</sup>

Since 1934, tuberculosis sanatoria in the Territory have been more crowded than those in the United States. The mainland occupancy range of 74.4 (in 1946) to 87.1 per cent (in 1938) over the past twenty years has been matched by local figures of 80 (in 1947) to 91 per cent (in 1939 and 1946).

The rather tight situation in "all other" hospitals has occurred in both local and mainland institutions. During the war these establishments ran as high as 112 per cent occupancy in Hawaii, and as low as 87 per cent. The mainland extremes have been 90 and 93 per cent (both before World War II). No definite trend has been apparent in either area. The most recent tabulations ascribe 91.5 per cent occupancy to "all other" mainland hospitals, 95 per cent to local institutions.

Tables 15 and 16 and Fig. 6 are concerned with percentage occupancy data.

<sup>68</sup>Data found in the Territory are comparable with mainland ratios established by C. Horace Hamilton, "Normal Occupancy Rate in the General Hospital," *Hospitals*, September 1946.

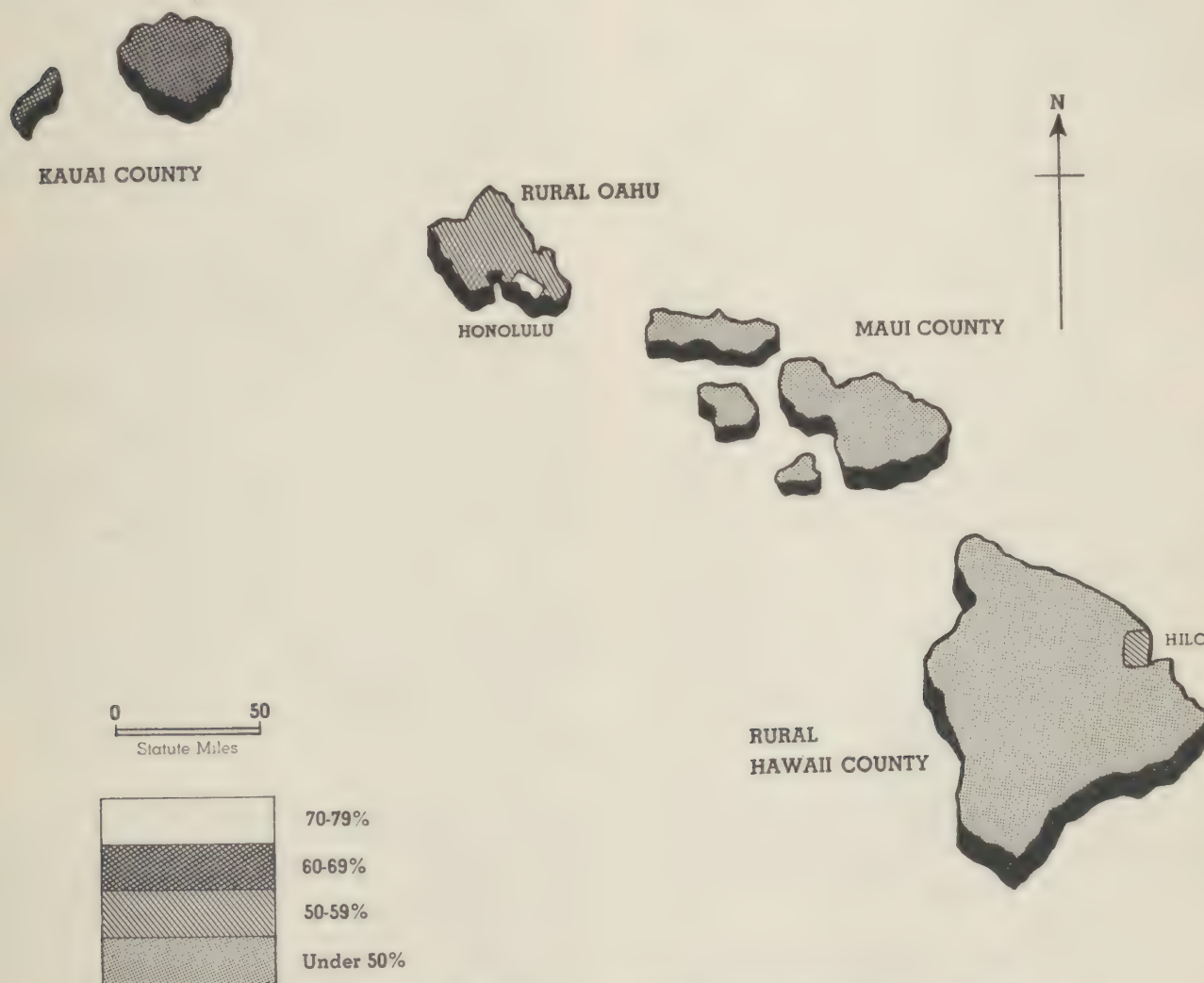


FIGURE 6—AVERAGE PERCENTAGE OCCUPANCY OF GENERAL HOSPITALS, TERRITORY OF HAWAII, 1947

SOURCE: TABLE 16.



## Admissions

The increase in total admissions has outstripped that in average census by a rather large margin. This fact has been true both in mainland and Island hospitals. It is partly to be accounted for by scientific advances which permit shorter average length of stay. There is some reason to believe that the sick and injured now seek hospital service for the lesser as well as major medical problems. The growth of hospital insurance plans has also been significant.

Between 1931 (when admissions data first became available in a uniform series) and the postwar period, the number of persons annually admitted to all hospitals almost doubled. This fact was true for both local and mainland institutions. Total hospital admissions steadily advanced from 31,053 in 1931 to 65,198 in 1947 in the Territory. On the mainland, the 1931 total of 7,156,000 contrasted strongly with the 1946 figures of 15,153,000.

Most of this increase seems to have occurred in the general hospitals. On the national level, admissions to general hospitals increased from 6,322,000 to 14,052,000; locally, from 27,270 to 54,894. Thus, in both cases, general institutions were responsible for by far the largest proportion of total admissions. Latest published data indicate that 92.7 per cent of all persons admitted to hospitals in the states entered general hospitals. The Hawaii percentage was 84.2.

Locally, the 17-year increase in number of admissions was most apparent in the metropolitan general hospitals. These more than doubled, with 11,596 in 1931 and 29,818 in 1947. The rural and small town general hospitals admitted 15,674 in 1931, and 25,076 in 1947—a growth of less than two-thirds.<sup>60</sup> Among the non-metropolitan areas in 1947, Maui County was the leader with more than ten thousand admissions (almost twice the number achieved in 1931). Rural Oahu and rural Hawaii followed, with 5,765 and 5,351, respectively, and Kauai County was last with 3,374. In the period of study, rural Hawaii and Kauai County exhibited the slowest growth in number of admissions, and Maui County the fastest.

Tuberculosis sanatoria have had an irregular growth in total admissions. About 100,000 patients were admitted to these institutions in the continental United States in 1946, compared to earlier totals which fluctuated broadly between 81,000 and 102,000. The inclusion of a number of general patients in the totals for Kula Sanatorium on Maui reduces the comparability of local data before 1939. Since then, admissions to the four county sanatoria have risen rather steadily from less than 600 to 846. It is less likely that incidence of this disease has increased than that educational and case-finding programs have ferreted out a number of previously undiscovered cases.

Number of admissions to "all other" hospitals has increased rapidly in the Islands. From 2,877 in 1931, the number grew to 9,458 in 1947, more than a three-fold increase. Between 1931 and 1946, admissions to "all other" hospitals on the mainland rose from 754,000 to 1,002,000.

These comparisons are no less surprising when related to total population. Of each 1,000 inhabitants in the States, 58 entered a hospital in 1931, compared

to 107 in 1946. The same years witnessed a growth in overall admissions in the Territory from 83 to 117 per 1,000 population. Thus a resident of the Islands has an appreciably greater chance of entering a hospital sometime during the year than his countryman in the States. In both places, a larger percentage of the population is going to hospitals than in past years. One out of eight persons in Hawaii did so in 1947.

Different patterns are evident for different types of general hospitals. Since 1932 a larger percentage of non-metropolitan than metropolitan residents has been admitted to these institutions, although this relationship was temporarily reversed during the war years. In 1947, admissions to Honolulu and Hilo general hospitals equaled just 10 per cent of the population of those two cities; for all other island areas, the corresponding figure was 11 per cent. In a number of earlier years an even greater difference was observed. All general hospitals in the Territory admitted 10.5 per cent of the population in 1947, making the chances about one in ten that a resident of Hawaii would enter a general hospital during that year. In 1946, the year of most recent comparable data, admissions per 1,000 population to general establishments numbered 99 in the Islands, 100 on the mainland. Prior to 1944, the local figure consistently surpassed that of the States.

There has been little variation, either locally or nationally, in the proportion of the population entering tuberculosis sanatoria; and the Island percentage has always been about double that of the States.<sup>60</sup> In 1946, 0.7 persons per 1,000 population were admitted to mainland tuberculosis hospitals, compared to 1.4 in the Hawaiian Islands.

The percentage of the population entering all other hospitals has greatly increased in Hawaii (if not on the mainland), so that at the present time almost two per cent of the Territory's inhabitants enter one of these establishments each year. In 1931, six per 1,000 persons were admitted to such mainland institutions, compared to eight in the Islands. The most recent data increase the mainland figure to seven, the local one to eighteen. Most of the eighteen enter either Kapiolani Maternity and Gynecological or Kapiolani Children's Hospitals; admissions to Shriners' or Territorial hospitals are not very numerous.

In summary, then, an ever greater proportion of the population of the Territory is entering hospitals. One out of eight persons was admitted to a hospital (of any kind) in 1947, one out of ten to a general hospital, and one out of fifty to a tuberculosis sanatorium, mental hospital or allied special institution.

Admissions data are given in Tables 17, 18, and 19, and Figs. 3 and 4.

## Average Length of Stay

One of the major phenomena of recent hospital history has been the drastic reduction in average length of stay. The historical introduction of this study traced the progress of this reduction in one major general hospital in Honolulu between 1859 and 1947. Territory-wide data (as well as mainland statis-

<sup>60</sup>These rates of increase corresponded rather closely to changes in number of inhabitants.

<sup>60</sup>Local data before 1939 not comparable because Kula Sanatorium also took general patients. The greater rate of incidence in Hawaii accounts for the differential in admissions. Official and voluntary health agencies have in addition been exceptionally active in educational and case-finding programs in the Hawaiian Islands.



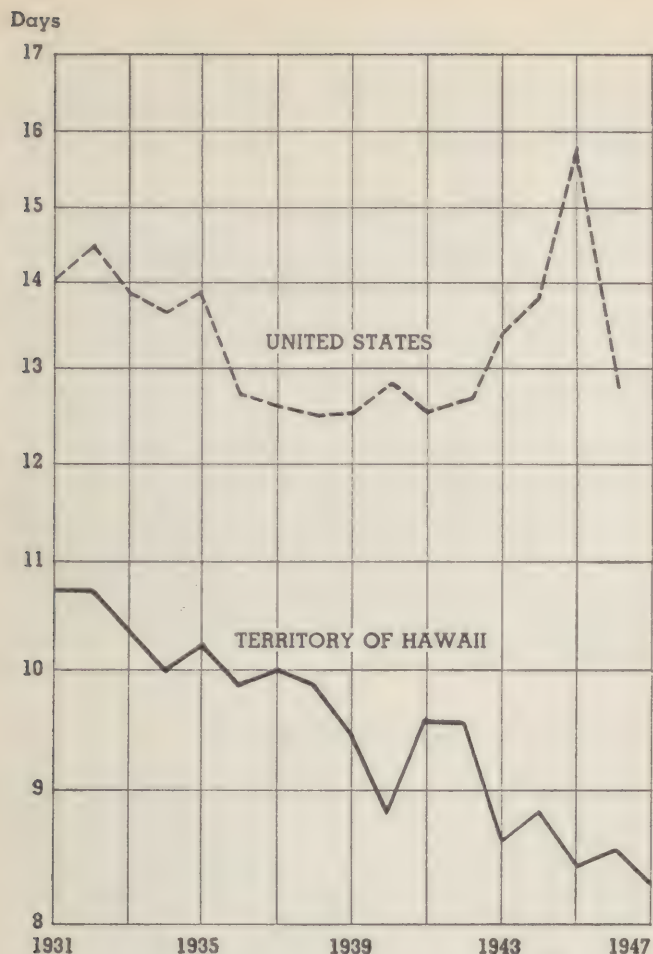


FIGURE 7—AVERAGE DAYS STAY IN  
GENERAL HOSPITALS  
UNITED STATES AND HAWAII  
1931-1947<sup>1</sup>

SOURCE: TABLE 20.

<sup>1</sup>Logarithmic vertical scale.

tics) indicate a similar trend since 1931.<sup>61</sup> Medical advances seem to have been primarily responsible, although a changing philosophy toward early ambulation and social and economic factors have had a share in this trend.

Unfortunately, available data do not permit an exact comparison between Hawaii and the continental United States. Military hospitals, for example, are omitted from Territorial data. The composition of the category called "all other hospitals" in this study differs locally from the mainland, where mental institutions (noted for long average stay) are more predominant. These factors influence average length of stay more than any other phase of hospital statistics.

In any case, it is obvious that the average has declined both nationally and locally. All hospitals reported an average length of stay of 40 days in the United States and 26 days in the Hawaiian Islands in 1931. By 1946 these figures had fallen to 29.9 days for the States and 20.4 days for the Territory. The decline has been less precipitous in recent years.

<sup>61</sup>When the data necessary to compute length of stay (average census and total admissions) first became available.

A similar trend is evident among general hospitals. In the Islands they once were characterized by an average stay of 10.7 days (1931 and 1932), but by 1947 the average was at an all-time low of only 8.3 days. During the period 1932-1946, the United States general hospital average declined from 14.5 to 12.9 days (it was 12.5 in 1938, '39 and '41). Among mainland general hospitals in 1946, those operated by the government (federal, state and local) averaged 22.1 days; those operated by non-profit associations, 9.6 days; and proprietary, 6.3 days.<sup>62</sup> The influence of economic factors is obvious in these data.

When analyzed by place of location, general hospitals in the Territory of Hawaii disclose interesting variations. In the past seventeen years, the non-metropolitan establishments have had longer average stays than those in the two largest cities only four times. The latter have lowered their average from 11.1 days (in 1931) to 8.5 days (in 1947). The rural and small town general hospitals have fallen from their 1931 level of 10.5 days to the 1947 average of 8.1. During this period, different areas have fluctuated a good deal. In 1947, rural Oahu had the shortest average stay (7.1 days), followed by Maui County (7.4), Kauai County (8.1), and rural Hawaii County (10.6). Among the two big cities, Hilo always has had a longer average stay than Honolulu, largely because of the presence of the county-operated Hilo Memorial Hospital. In the Islands as in the States, governmentally-operated establishments have usually been characterized by long average lengths of stay.

In recent years<sup>63</sup> the four tuberculosis sanatoria in the Territory have exhibited appreciably longer average lengths of stay than those on the mainland. In 1946, the local average was 486 days, compared to a continental United States average of less than 227 days.<sup>64</sup> Admittedly, this figure was rather high for the Hawaiian institutions, which more recently (in 1947) averaged only 408.5 days. The data—and not too much significance must be attached to them, for various statistical reasons—fail to indicate any clear trend, either in the Islands or elsewhere.

"All other hospitals" is too all-inclusive a category to provide much in the way of meaningful statistics, but certain trends seem evident. Nationally, average length of stay in these establishments reached a peak in 1940 (almost 300 days) and since has been declining, so that in 1946 it had fallen to 248 days. The Island summit was achieved in 1933 (about 97 days), followed by a rather steady fall to the 1947 mark of 52 days. Direct comparisons between the two areas based on these data are unwise because of the differing compositions of the category. An overall downward trend in these miscellaneous institutions is evident, however.

Perhaps more significance can be gleaned from the local "all others" category by removing Territorial Hospital for the mentally ill, and confining the data to the three allied special institutions. As recently as 1933, average length of stay at these three hospitals was 12.8 days. After 1939, when the average was 9.8,

<sup>62</sup>"Hospital Service in the United States," *Journal of the A.M.A.*, 133:1074.

<sup>63</sup>After 1938, the last year in which Kula Sanatorium served general as well as tuberculous patients.

<sup>64</sup>Possibly because lack of facilities on the mainland creates preference for minimal cases amenable to treatment, while both early and advanced cases are given care in Hawaii.



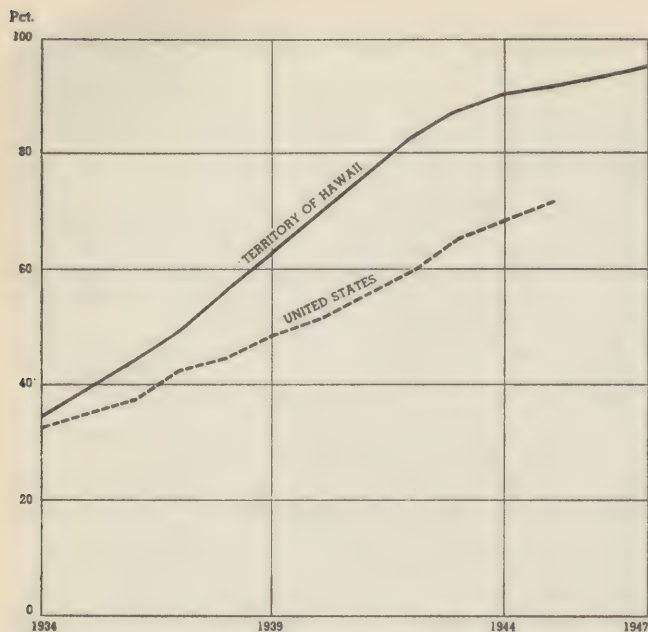


FIGURE 8—PERCENTAGE OF TOTAL LIVE BIRTHS OCCURRING IN HOSPITALS  
UNITED STATES AND HAWAII  
1934-1947

SOURCE: TABLE 23.

the decline was rapid—9.1 days in 1940, 8.0 in 1942, and 7.2 in each of the years 1945 through 1947. This improvement in average length of stay appeared concomitantly with changes in total bed capacity (from 76 in 1928 and 1929 to 255 in 1947), average census (48 in 1929, 179 in 1947), admissions (2610 in 1931, 9111 in 1947—most of the growth since 1940), and bassinets (6 reported in 1928, 87 in 1947).<sup>65</sup> Average occupancy in these two decades ranged from a low of 59 per cent (in 1930) to a high of 88 per cent (1942). Other years in which these establishments were crowded to a high degree were 1939, 1941 (both 79 per cent), 1943 (83 per cent), and 1944 (78 per cent). The occupancy in 1947 averaged 70 per cent.

Tables 20, 21 and 22 list average length of stay. The last named gives summary data of all types for the three "allied special" hospitals in the Islands.<sup>66</sup> Average days' stay is portrayed graphically in Figs. 1 and 7.

### Live Births

The proportion of live births occurring in hospitals is quite high in the Islands, and the percentage is steadily increasing. In 1934, slightly less than a third of mainland-born infants were delivered in hospitals, in comparison with a figure of slightly more than a third in the Territory. By 1945 (year of most recent comparable data), the mainland ratio had increased to about three-fourths (90.8 per cent in the cities,

61.4 per cent in rural areas), and the Island percentage to 93.8. Thus Hawaii, with a greater percentage of hospital-delivered babies than the continental United States since 1934, has also progressed much faster. Comparative data are given in Table 23 and Fig. 8.

When analyzed according to usual place of residence, live birth data for the Territory are still more encouraging. Rural areas are characteristically far behind the cities in obstetrical facilities and practices, yet in 1947 only rural Hawaii County had appreciably fewer births in hospitals than the capital city of the Territory. In Honolulu, 93.7 per cent of live births occurred in hospitals, compared to 95.7 per cent in Hilo, 93.5 per cent in rural Oahu, 90.8 per cent in rural Hawaii County, 94.3 per cent in Maui County, and 96.5 per cent in Kauai County. The great advance since 1934 can be seen in Table 24. Percentage marks in that year were: Honolulu, 40; Hilo, 31; and the four rural areas, 19 to 49. Much of the credit for this progress must go to the medical profession, public health workers, and the plantation hospitals, which have consistently pushed the cause of better obstetrical practices in their areas.

## Intercorrelations

Intercorrelations were calculated for seven measures of service and facilities in the Territory in 1947. The ranks of each of thirty general or allied special hospitals (for which full data were available) in each of these measures were determined. Rho values were then obtained (see Table 62).<sup>67</sup>

Admissions data correlated most highly with other measures of service. A large admissions figure for a hospital proved almost invariably to be an index of high bed capacity, large average census, high occupancy, and location in a populous town. Cost per patient day was also closely related to annual admissions, but this was not the case with average length of stay.

Bed capacity, percentage occupancy, and average census also correlated rather uniformly well with other measures, while slightly lower rho values were evident in the cases of population of town in which located and cost per patient day.

Least relationship to other criteria of service was displayed by average length of stay. There was a slight tendency for longer average stays to be associated with high occupancy ratios.<sup>68</sup> Other criteria correlated negatively with average length of stay.<sup>69</sup>

Thus there was, in 1947, a tendency for location in a large town, high bed capacity, large average census, numerous admissions, high occupancy ratios, and expensiveness of operation to occur together. Conversely, small town locations, low capacities, few admissions, vacant beds and low cost per patient day were usually found together. Long (or short) average stays were associated with all types of hospitals and communities.

<sup>65</sup>No bassinets reported in the period 1929-1932, probably because of incompleteness of the A.M.A. census.

<sup>66</sup>Kapiolani Maternity and Gynecological, Kaula Children's, and Shriners' Hospital for Crippled Children—which, with Territorial Hospital, comprise the institutions lumped together as "all others" in the summary tables.

<sup>67</sup>Rho ( $\rho$ ) is a measure of correlation from ranks. Perfect correlation is indicated by  $\rho = +1.00$  or (if inverse)  $\rho = -1.00$ . Complete lack of correlation is indicated by  $\rho = .00$ .

<sup>68</sup> $\rho = +.14$ .

<sup>69</sup> $\rho = -.04$  to  $-.40$ .



## Economic Correlations

Implicit in many of the trends described in the preceding pages is the influence of the economic condition of the Territory. Casual examination of fluctuations in number of admissions, average length of stay, and other criteria of hospital use suggest a definite relationship with the business cycle. This apparent relationship has often been remarked on the mainland, and occasionally in an Island context.

A brief study was therefore made of the correlations between hospital statistics and economic conditions in the Territory. The hospital data were taken from the sources noted previously. Economic well-being was measured by the per capita buying power of the Islands. The total taxable income from wages, salaries and dividends as supplied by the Territorial Tax Commissioner's Office was chosen as a fair index of total income. This series of figures was reduced to a per capita basis through use of estimates of total population made by the Territorial Board of Health, then expressed in terms of 1943 buying power by dividing by the national or Honolulu consumers' price index. For each factor the years 1933-1941 and 1946 and 1947 were ranked one through eleven.<sup>70</sup> Rank-order correlations were then made.<sup>71</sup>

Of the four categories of hospitals considered in this correlational study—all hospitals, all general hospitals, metropolitan (Honolulu and Hilo) general hospitals, and non-metropolitan general hospitals—the last named, rural and small town general hospitals, displayed most sensitivity to the business cycle. Almost invariably, both bed capacity and total admissions (both per 1,000 population) increased in times of prosperity and slumped during a depression.<sup>72</sup> Average length of stay usually was highest when incomes were lowest, although in this case the relationship was far from perfect.<sup>73</sup> A high correlation was shown by metropolitan hospitals only in average length of stay,<sup>74</sup> and by all general hospitals and total hospitals (all types of service) only in average stay and ratio of admissions.<sup>75</sup> Admittedly, the high correlations between income and average length of stay may partly be explained by the coincidental secular trends in local economic expansion and worldwide hospital advances (toward shorter length of stay and more admissions). Adjustment for these factors would undoubtedly reveal a less impressive relationship between per capita buying power and hospital usage.

Of the seven types of hospital statistics considered for correlation with economic data, both admissions per 1,000 population and average length of stay fluctuated in close harmony with the business cycle. For all types of hospital, admissions increased and average stay decreased in boom times; while in a

period of recession, the converse was true. Average stay correlated most highly in the case of total hospitals, least highly with non-metropolitan general hospitals.<sup>76</sup> Admissions data exhibited the best correlations among non-metropolitan general hospitals, the lowest with their metropolitan counterparts.<sup>77</sup> Average percentage occupancy, number of hospitals, average census per 1,000 population, and average size (bed capacity) of hospitals were all higher in good times than in bad, but the relationship was not especially close.<sup>78</sup> Beds per 1,000 population correlated highly only in the case of non-metropolitan general hospitals; the reverse of this positive relationship was true, to a degree, among Honolulu and Hilo general hospitals, where good times were associated with fewer beds relative to the population.<sup>79</sup> It was felt unnecessary to consider the relationship of live births occurring in hospitals and economic factors.<sup>80</sup>

There was no apparent lag between economic factors and hospital usage, so that forecasting of next year's hospital trends through knowledge of this year's per capita buying power is not appreciably simplified.

## Personnel and Special Services

A few comments might be made concerning hospital personnel and specialized services. Recent (1947) data are available for number of residents, internes, laboratory technicians, registered nurses, student nurses, and practical nurses and attendants in each hospital. Similar information is available for 1947 regarding the use of clinical laboratories, an x-ray department, pathologist and roentgenologist. This material is summarized in Tables 26, 27 and 60. For the major Honolulu hospitals, yearly figures for numbers of x-ray examinations, surgical operations and laboratory examinations are listed for the years 1934-1947 in Tables 53 to 59.

In the 44 civilian hospitals (exclusive of those devoted to leprosy and feeble-minded patients) surveyed by the Territorial Department of Health early in 1948<sup>81</sup>, there were 32 residents, 21 internes, 56 laboratory technicians, 664 registered nurses, 344 student nurses, and 755 practical nurses and attendants. Of the forty-four, 39 hospitals offered x-ray facilities, 31 possessed a clinical laboratory, 11 employed a full-time pathologist, and nine had a full-time roentgenologist. The metropolitan general hospitals, with three times the average bed capacity of the non-metropolitan general hospitals, were equally as far ahead in number and diversity of personnel and specialized services. The allied special hospitals closely approached them in this respect.

Laboratory examinations, x-ray examinations and surgical operations have increased appreciably in the major Honolulu hospitals during the past decade or so. Routine diagnostic tests have grown greatly in

<sup>70</sup>Accurate data for years prior to 1933 are not available in all cases. The war years (1942-1945) were omitted because of their abnormal character.

<sup>71</sup>Correlation from ranks (rho or  $\rho$ ) chosen because of approximate nature of some of the data and greater ease of computation. All rho values are listed in Table 25.

<sup>72</sup>Rhos of  $+ .80$  (beds per 1,000 population) and  $+ .88$  (admissions per 1,000 population). It must be remembered that a high positive or negative correlation does not necessarily imply a cause-effect relationship.

<sup>73</sup> $\rho = -.72$ .

<sup>74</sup> $\rho = -.89$ .

<sup>75</sup>Between per capita buying power and average stay,  $\rho = -.87$  (for all general hospitals) and  $-.95$  (for all hospitals). Between per capita buying power and admissions per 1,000 population,  $\rho = +.69$  (for all general hospitals) and  $+.81$  (for all hospitals).

<sup>76</sup> $\rho = -.95$  and  $-.72$ , respectively.

<sup>77</sup> $\rho = +.88$  and  $+.55$ , respectively.

<sup>78</sup>Rhos ranged between  $+.07$  and  $+.59$ .

<sup>79</sup> $\rho = +.80$  (non-metropolitan) and  $-.47$  (metropolitan).

<sup>80</sup>No correlational study was made of proportion of live births occurring in hospitals because the trend in this case is definitely one of secular movement, with little basis in economic considerations.

<sup>81</sup>The five hospitals not registered with the A.M.A. were included, and two registered hospitals failed to submit data.



quantity and variety and now involve not only chemical and microscopic analyses of blood, tissues, gastric and other body secretions and excretions, but also such procedures as basal metabolism determination, the electrocardiogram and electroencephalographic tracings. The improved solvency of local patients may also be considered a factor in this upward trend.

## Future Developments

### *Methodology*

Some value may attach to prognostications of hospital service in Hawaii for a future date. Assuming a fair degree of accuracy in such predictions, the average citizen can anticipate the likelihood of his entering a hospital in future years. More importantly, planners are enabled to determine probable future bed needs from such estimates, and arrange financing and construction programs accordingly. However, it must be remembered that these forecasts are only approximate, and based on assumptions that may not for long correspond to actual conditions.

A basic assumption underlying the following prognostications is that present trends, extrapolated no more than a decade from the time of most recent available data, provide an adequate forecast of likely future developments. That is to say, no radical deviation from trends discernible during the recent past is expected for a number of years. The enrollment of a large segment of the population in a voluntary hospital insurance plan, as is being done in many states, or adoption of a government-sponsored hospital care program would be such deviations tending to invalidate the following estimates. The probability of accuracy declines, of course, as forecasts reach farther into the future.

Curves were mathematically fitted to admissions and census data for the Territory and extrapolated to 1950 and 1955. More specifically, total hospital census and admissions (in civilian registered hospitals exclusive of those devoted to lepers and the mentally deficient) per 1,000 population for the Territory were characterized by two trend lines. One such fitted curve embraced the past two decades, thus revealing the long-term trend. The second curve was fitted to data for 1941-1947, to show the recent trend. Both a "low" and a "high" value were thus obtained in the extrapolated values. In most cases a straight-line trend was evident, and the "least squares" method was used throughout. It was felt unwise to attempt projections beyond 1955, eight years after the time of most recent available data. Resulting estimates of census and admissions per 1,000 inhabitants are listed in Table 28.

The estimates thus obtained permitted checking through translation into average length of stay estimates.<sup>82</sup> The census and admissions projections seemed reasonable when so translated, although weakest in the case of 1955 general hospital forecasts.<sup>83</sup>

<sup>82</sup>Translated by formula.

$$\text{Average stay in days} = \frac{365 \times \text{Estimated average census per 1,000 population}}{\text{Estimated admissions per 1,000 population}}$$

<sup>83</sup>If these "high" and "low" estimates are correct, little future decline in average length of stay is perceivable; general hospitals, in fact, may increase after 1950— if three of the four possible combinations of extreme ("high" and "low") estimates occur. Such combination of extreme values is quite unlikely, however, so that continued (but more gradual) decline of average length of stay in general hospitals in actuality can be expected. See Table 29.

It was next necessary to determine the probable resident population of the Hawaiian Islands in 1950 and 1955. Such estimates were obtained by extrapolating "least squares" trend lines fitted to 1929-1947 (which gave "low" estimates of 543 and 591 thousands for 1950 and 1955, respectively) and 1941-1947 (which gave "high" estimates of 557 and 609 thousands) population data for the Territory, then averaging the two sets of projections thus computed. The values finally selected were 550,000 in 1950 and 600,000 in 1955. In the light of recent developments, both seem rather conservative.

The hospital census and admissions values estimated earlier were then applied to these population projections to obtain total average census and admissions. Both "high" and "low" estimates were made for 1950 and 1955. Limitations of data and similarity of "high" and "low" projections made only a "medium" estimate possible in a few cases, however. These forecasts are given in Table 30.

Finally, percentage occupancy figures were assumed for future years, and applied to the above total census estimates to obtain the total number of needed beds. Past trends in occupancy were projected to 1950 and 1955, but tempered by consideration of ideal standards and likely local developments. Total required beds thus determined (and given in Table 31) were compared with actual beds existing in registered civilian hospitals in 1947 to find the number of beds needed beyond additional facilities (see Table 32). These needs, it must be remembered, concern only net additional beds, disregarding the need for replacement beds caused by inferior construction, obsolescence, overcrowding or other reasons.

### *Findings*

Compared to 1947 data, a somewhat larger total average census and number of admissions per 1,000 population can be expected in the Islands in the next decade. That is to say, at any one time a greater proportion of the population than at present will be occupying beds in registered hospitals in the Territory, and in any future year a larger percentage of the population will be admitted to hospitals. The degree of estimated increase varies according to type of service; tuberculosis sanatoria, in fact, will probably contain a smaller proportion of the population in 1955 than in 1947. Admissions seem destined to rise faster relative to number of inhabitants than total average census. The reasons for these developments have been noted in the preceding paragraphs. Complete data are given in Table 28.

Partly because of the increased per capita use of hospital facilities predicted above, partly as a result of expanding population, an absolute increase in total average census and admissions appears probable for the next decade. Using the methodology explained above, an estimate of 1360 to 1430 total average census was obtained for general hospitals in 1950, and 1590 to 1810 in 1955 (the 1947 absolute figure was 1252). Total admissions, 54,894 in local general hospitals in 1947, are estimated at 56,700 to 63,140 in 1950, and 62,340 to 73,800 in 1955. Similar growth in service statistics is forecast for tuberculosis and "all other" hospitals (see Table 30 and Fig. 5).

If adequate occupancy ratios are to be maintained,



a large number of beds will be necessary. A minimum of 2090 beds in general hospitals, 1210 in tuberculosis sanatoria,<sup>84</sup> and 1600 in all other registered hospitals are indicated for 1950; five years later, the respective minimums (as estimated above) should be 2450, 1280 and 1860. These prognostications are listed in Table 31 and Fig. 5.

These needs become more meaningful when expressed as number of beds required in addition to the number available in 1947. By 1950, general hospitals should add from 7 to 117 beds (plus replacement beds)

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<sup>84</sup>The high figures for tuberculosis sanatoria may seem inconsistent with the decreasing rate of incidence in the Territory. These estimates are justified, however, by the population increase and improved percentage occupancies anticipated for future years.

over the 1947 level, and 367 to 697 more by 1955.<sup>85</sup> Tuberculosis sanatoria will need 21 to 71 net additional beds by 1950, 91 to 221 by 1955. "All other" hospitals (mental and allied special) have the greatest needs; 185 to 275 more beds by 1950, 445 to 565 more than in 1947 by 1955. A total building program (exclusive of replacement requirements) of 213 to 463 beds is indicated by 1950, of 903 to 1483 beds more than existed in 1947 by 1955. It will thus be necessary to increase total available beds by about a third within the next seven years.<sup>86</sup>

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<sup>85</sup>An analysis by area is admittedly needed as a basis for any final action, because of the different situations existing in metropolitan and non-metropolitan general hospitals. The figures quoted above cover the entire Territory, without regard for spatial distribution; a breakdown by area would require separate population estimates for metropolitan and rural and small town areas. It is safe to say, however, that most of the beds needed by 1950 and 1955 should be allocated to Honolulu and Hilo, where both occupancy rates and population growth are greatest. From a statistical point of view (and ignoring structural and other factors), the non-metropolitan areas could receive adequate service from present facilities for a number of years yet to come.

<sup>86</sup>Full data in Table 32.



Table 1  
HOSPITALS IN THE HAWAIIAN ISLANDS  
BY LOCATION, TYPE, AND YEARS OF OPERATION  
1778-1947<sup>1</sup>

CITY	NAME OF HOSPITAL	TYPE OF SERVICE	YEAR ESTABLISHED	YEAR CLOSED
<i>Island of Oahu</i>				
Honolulu	U. S. Hospital <sup>2</sup>	General and convalescent (for U. S. seamen)	1837	c.1875
"	English Hospital <sup>3</sup>	General and convalescent (for British seamen)	1841	c.1854
"	French Hospital	General and convalescent (for French seamen)	c.1845	c.1850
"	City Hospital	General	1853 <sup>4</sup>	c.1856
"	The Queen's Hospital	General	1859	s
"	Kalihi Hospital	Leprosy	1865	s
Honolulu-Kaneohe	Oahu Asylum for the Insane (Territorial Hospital) <sup>5</sup>	Mental illness	1866-1930	s
Honolulu	Branch Leper Hospital	Leprosy	1881	c.1895
"	Small-Pox Hospital	Small-pox (temporary)	1881	1882
"	Kapiolani Maternity and Gynecological Hospital	Maternity	1890	s
Ewa	Ewa Plantation Hospital	General (plantation)	1890	s
Honolulu	Chinese Hospital <sup>6</sup>	General	1897	?
Waialua	Waialua Agricultural Company Hospital	General (plantation)	1898	s
Waipahu	Oahu Sugar Co. Hospital	General (plantation)	1898	s
Aiea	Aiea Community Hospital <sup>7</sup>	General	1898	s
Honolulu	Leahi Hospital	Tuberculosis	1900	s
"	Kuakini Hospital <sup>8</sup>	General	1900	s
"	Tripler Hospital	General (military)	1907 <sup>9</sup>	s
Schofield Bks.	26th Station Hospital	General (military)	1909	s
Honolulu	Kauikeolani Children's Hospital	Pediatric	1909	s
Wahiawa	Briggs Sanatorium <sup>10</sup>	Chronic	1911	?
Kahuku	Kahuku Hospital	General (plantation)	1912	s
Pearl Harbor	U. S. Naval Hospital	General (military)	1917	s
Pearl City	Waimano Home	Mentally deficient	1920	s
Honolulu	Shriners' Hospital for Crippled Children	Orthopedic	1923	s
Waianae	Waianae Hospital	General (plantation)	11	11
Honolulu	Saint Francis Hospital	General	1927	s
Waimanalo	Waimanalo Hospital	General (plantation)	12	12
Waipahu	The Tamura Hospital	General	1933	s
Wahiawa	Mack Hospital	General	13	c.1943
"	Wahiawa General Hospital	General	1942 <sup>14</sup>	s
Honolulu	Sacred Hearts Emergency Hospital	Emergency	1942	1944
Aiea	Aiea Naval Hospital	General (military)	1942	s

<sup>1</sup> Dates of operation from "Hospital Service in the United States," *Journal of the A.M.A.* (92:1117, 94:987 and 96:1085); *American and Canadian Hospitals*, 2d ed. *American Hospital Directory*, 1946; questionnaires returned by the hospitals; and miscellaneous sources mentioned in the text. The most reasonable date was chosen in case of disagreement among sources. Although an attempt has been made to list all hospitals ever operated in the Islands, it is undoubtedly true that some establishments have been missed. The 1946 and 1947 data, from Territorial Board of Health listings are probably complete; the 1928-1945 figures are, for the most part, confined to hospitals registered with the American Medical Association; and data for the period prior to 1928 are based largely on scattered historical sources. Thus some small, unregistered hospitals no longer in operation have, in all likelihood, been missed. Furthermore, this table omits mention of lying-in homes, convalescent nursing homes, and the like. Also omitted are unused emergency hospitals erected during wartime, plantation dispensaries, and similar establishments. No record can be found of hospitals on Nihoa or Kahoolawe.

<sup>2</sup> The U. S. Hospital (also known as American Hospital and Honolulu Marine Hospital) occupied the following sites: Waikiki, 1837; ewa-mauka corner of Fort and Hotel Streets, c.1843; Alakea between Beretania and Hotel (ewa side), c.1846; Punchbowl and Beretania, c.1852; premises near Palace Walk, c.1860; plain of Kulakohua, 1866; King St., 1869; and Punchbowl Street near Beretania, c.1870. Dr. Trousseau operated a clinic at the Punchbowl Street site during the late 1870s and throughout the 1880s.

<sup>3</sup> The Hospital for English Seamen occupied the following sites: Ewa-makai corner of Nuuanu and King Streets, April 1841; Pauoa Valley ("Little Greenwich Hospital"), January 1846; and Waikiki Plains ("Little Britain Hospital"), c. 1848.

<sup>4</sup> Successor to the short-lived Hydropathic sanatorium opened by Dr. Ford and Dr. Lathrop in Nuuanu Valley in May 1852 ("Early Hawaiian Medicos," *Hawaiian Annual for 1933*, p. 57).

<sup>5</sup> This institution remained in Honolulu until 1930, when it was removed to Kaneohe.

<sup>6</sup> Opened in Palama, March 4, 1897 (*The Friend*, April 1897, p. 55).

<sup>7</sup> Formerly a plantation hospital (called Aiea Plantation Hospital).

<sup>8</sup> Prior to World War II called Japanese Hospital and limited, for the most part, to persons of Japanese ancestry.

<sup>9</sup> In continuation of facilities established in 1898.

<sup>10</sup> *Paradise of the Pacific*, February 1912, p. 17.

<sup>11</sup> Opened before 1928. Later converted into a dispensary, which was closed December 31, 1947.

<sup>12</sup> Opened before 1935. Closed after 1937.

<sup>13</sup> Before 1940.

<sup>14</sup> Opened 1942 as an OCD hospital. In 1945 converted to a general hospital.

S Still in operation in January 1948.



Table 1 (Continued)  
HOSPITALS IN THE HAWAIIAN ISLANDS  
BY LOCATION, TYPE, AND YEARS OF OPERATION  
1778-1947

CITY	NAME OF HOSPITAL	TYPE OF SERVICE	YEAR ESTABLISHED	YEAR CLOSED
<i>Island of Hawaii</i>				
Hilo	Seaman's Hospital <sup>15</sup>	General and convalescent (U. S. seamen)	c.1855	c.1863
Paauilo	Hamakua Mill Co. Hospital	General (plantation)	1892	s
Hilo	Hilo Memorial Hospital	General	1897	s
Haina	Honokaa Plantation Hospital	General (plantation)	1900	s
Olaa	Olaa Plantation Hospital	General (plantation)	1900	s
Pepeekeo	Pepeekeo Plantation Hosp.	General (plantation)	1911	s
Hilo	Puumaile Hospital	Tuberculosis	1912	s
Kealahakua	Kona Hospital	General	1913	s
Hilo	Dr. Sasaki's Hospital	General	1915	<sup>16</sup>
Pahala	Hawaiian Agricultural Co. Hospital	General (plantation)	1915	s
Laupahoehoe	Laupahoehoe Sugar Co. Hospital	General (plantation)	1916	s
Paauhau	Paauhau Sugar Plant. Co. Hospital	General (plantation)	1922	1941
Hilo	Matayoshi Hospital	General	1922	s
Kohala	Kohala County Hospital	General	1924	s
Waiohinu	Kauhane Memorial Hospital	General	1925	<sup>17</sup>
Hakalau	Hakalau Plantation Hospital	General (plantation)	<sup>18</sup>	s
Ookala	Ookala Hospital	General (plantation)	<sup>18</sup>	s
Honokaa	Okada Hospital	General	1937	s
Papaikou	Papaikou Hospital	General	<sup>19</sup>	c.1943
Hilo	Mitamura Hospital	General	<sup>20</sup>	1947
Kealahakua	Kona Community Hospital	General	<sup>20</sup>	1948
Hilo	Matsumura Hospital	General	<sup>20</sup>	s
"	Oto Hospital	General	<sup>19</sup>	s
"	Yamanoha Hospital	General	<sup>20</sup>	s
<i>Island of Maui</i>				
Lahaina	U. S. Hospital	General and convalescent (U. S. seamen)	c.1844	?
Wailuku	Malulani Hospital	General	1884	s
Paia	Maui Agricultural Co's Paia Hospital	General (plantation)	1906	s
Lahaina	Pioneer Mill Co. Hospital	General (plantation)	1908	s
Kula	Kula Sanatorium (Maui County Farm and Sanatorium)	Tuberculosis <sup>21</sup>	1910 <sup>21</sup>	s
"	Kula General Hospital	General	1910 <sup>21</sup>	s
Puunene	Puunene Hospital	General (plantation)	1912	s
Hana	Hana County Hospital	General	1920	s
Wailuku	Yamashiro Hospital	General	<sup>22</sup>	c.1942
<i>Island of Kauai</i>				
Makaweli	Hawaiian Sugar Co. Hospital	General (plantation)	1886	1941
Kilauea	Kilauea Hospital	General (plantation)	1887	1944
Koloa	Koloa Cottage Hospital	General	1888	1903
Kealia	Kealia Hospital	General (plantation)	1890 <sup>23</sup>	1939
Lihue	Lihue Hospital	General (plantation)	1894	1938
Waimea	Waimea Hospital	General	1895	s
Eleele	McBryde Sugar Co. Hospital	General (plantation)	1899	c.1944
Koloa	Koloa Sugar Co. Hospital	General (plantation)	1911	1947
Kapaa	Samuel Mahelona Hospital	Tuberculosis	1917	s
Hanapepe	Betsui Memorial Hospital	General	<sup>24</sup>	1947
Lihue	G. N. Wilcox Memorial Hospital	General	1938	s
<i>Island of Molokai</i>				
Kalaupapa	Kalaupapa Leper Settlement	Leprosy	1866	s
Pukoo	Ualapue	General	1922	1942
Hoolehua	Robert W. Shingle, Jr. Memorial Hospital	General	1931	s
Maunaloa	Maunaloa Hospital	General (plantation)	1932	s
<i>Island of Lanai</i>				
Lanai City	Lanai City Hospital	General	1925	s

<sup>15</sup>This was Dr. Wetmore's hospital, largely patronized by American seamen. There is some evidence of a U. S. Hospital in Hilo as early as 1844.

<sup>16</sup>After 1929.

<sup>17</sup>After 1935.

<sup>18</sup>Before 1928.

<sup>19</sup>Before 1940.

<sup>20</sup>Before 1946.

<sup>21</sup>Kula Sanatorium rendered general services until 1938, after which Kula General Hosp. was listed separately.

<sup>22</sup>Before 1938.

<sup>23</sup>Or 1917.

<sup>24</sup>Before 1940.

S Still in operation in January 1948.



Table 2  
SERVICES & FACILITIES  
THE QUEEN'S HOSPITAL  
Honolulu, Hawaii  
1859-1947

YEAR	BEDS <sup>1</sup>	% OCCUPANCY	AVERAGE CENSUS	ADMISSIONS <sup>2</sup>	AVERAGE DAYS STAY <sup>3</sup>	BIRTHS
1860}	18-124	.....	19	309	42.	N.A.
1861} <sup>4</sup>						
1870}	N.A.	N.A.	N.A.	961	N.A.	N.A.
1871} <sup>5</sup>						
1872}	N.A.	N.A.	78	693 <sup>7</sup>	82.	N.A.
1873} <sup>6</sup>						
1874}	N.A.	N.A.	N.A.	862 <sup>7</sup>	N.A.	N.A.
1875} <sup>8</sup>						
1878}	N.A. <sup>9</sup>	N.A.	70 <sup>9</sup>	934 <sup>10</sup>	55. <sup>9</sup>	N.A.
1879}						
1887 <sup>11</sup>	N.A.	N.A.	49	484	37.	N.A.
1890	N.A.	N.A.	N.A.	900 <sup>12</sup>	N.A.	N.A.
1902 <sup>13</sup>	N.A.	N.A.	59	683	32.	N.A.
1903 <sup>14</sup>	N.A.	N.A.	61	712	31.	N.A.
1904 <sup>15</sup>	N.A.	N.A.	61	659	34.	N.A.
1905 <sup>15</sup>	N.A.	N.A.	48	515	34.	N.A.
1906 <sup>15</sup>	N.A.	N.A.	62	809	28.	N.A.
1907 <sup>15</sup>	N.A.	N.A.	63	983	23.	N.A.
1908 <sup>15</sup>	N.A.	N.A.	60	827	27.	N.A.
1909 <sup>15</sup>	N.A.	N.A.	61	866	26.	N.A.
1910	N.A.	N.A.	80 <sup>16</sup>	1244	23.6	N.A.
1911	N.A.	N.A.	74	1272	21.3	N.A.
1912	N.A.	N.A.	80	1426	20.6	N.A.
1913	N.A.	N.A.	89	1612	20.1	N.A.
1914	N.A.	N.A.	93	1699	20.1	N.A.
1915	N.A.	N.A.	82	1780	16.9	N.A.
1916	N.A.	N.A.	86	1810	17.5	N.A.
1917	N.A.	N.A.	97	2151	16.5	N.A.
1918	N.A.	N.A.	105	2361	16.2	N.A.
1919	N.A.	N.A.	125	3150	14.5	N.A.
1920	190	68 <sup>17</sup>	130	3658	13.0	N.A.

<sup>1</sup>Actual number available (complement) before 1931; rated (normal) beds for 1931-1933. Data for 1928-1933 from annual hospital numbers of the *Journal of the American Medical Association*.

<sup>2</sup>Excluding births, 1910-1924; including births, 1925-1947. Unknown before 1910.

<sup>3</sup>Years 1860-1910 estimated by formula. Average days stay =  $\frac{365 \times \text{average census}}{\text{Admissions}}$

Calculated from total patient days (given in the Annual Reports) and number of admissions, 1911 to 1920.

<sup>4</sup>Period August 1, 1859 - June 20, 1861 (first 690 days of the hospital's existence). From Wm. Hillebrand, M.D. "Physician's Report," *The Polynesian*, June 29, 1861. The original building, occupied from August 1, 1859 until March 1860, had 18 beds; the quarters used from that date until December 1860 had 24 beds; and the permanent building, used after December 1860, had 124 beds. Average census from data for total patient days.

The first five months of this period (August 1 - December 31, 1859) average census was approximately 9 (estimated by averaging the census of September 3, October 1, and December 31, as given by *The Friend*, September 3, 1859, p. 65, *The Polynesian*, October 1, 1859, and *The Polynesian*, January 14, 1860). Admissions numbered 54, discharges 43, deaths 4, and average stay approximately 27 days, in this five month period (Wm. Hillebrand, M.D., "Report of the Physician of the Queen's Hospital," *The Polynesian*, January 14, 1860.)

<sup>5</sup>Biennial report printed in the *Hawaiian Gazette*, June 28, 1871, covering the two-year period ending June 1871.

<sup>6</sup>Two-year period ending June 1873. From biennial report published in the *Hawaiian Gazette*, July 16, 1873. Average census based on fragmentary data for 1872 (*Hawaiian Gazette*, June 26 and December 25, 1872).

<sup>7</sup>"Total inmates."

<sup>8</sup>Two-year period ending June 1875. From *Hawaiian Gazette*, July 7, 1875.

<sup>9</sup>Average census and average length of stay based on quarterly reports for three-month periods ending February 28, 1879 (*Hawaiian Gazette*, March 5, 1879), May 31, 1879 (*Hawaiian Gazette*, June 11, 1879) and November 30, 1879 (*Hawaiian Gazette*, December 17, 1879). Census on December 29, 1880 was 80. The hospital had 90 beds at the time. (L. Vernon Briggs, *Experiences of a Medical Student in Honolulu, and on the Island of Oahu, 1881*, Boston, 1926, p. 9. The data are quoted by Briggs from his diary).

<sup>10</sup>"Biennial Report of the Secretary" for the 2 years ended June 30, 1879, reprinted from the *P. C. Advertiser* of July 12, 1879 by *The Friend*, August 1, 1879, p. 66. Admissions during the "past 2 years," presumably 1877 and 1878, numbered 725, according to the *Report of the Board of Health to the Legislative Assembly of 1878*, p. 5.

<sup>11</sup>Data for half-year ending May 31, 1887, expressed as full-year rates by doubling figures for admissions and patient days.

<sup>12</sup>Estimated. Total patients treated numbered 932, of whom 13.7 percent died (*The Queen's Hospital Bulletin*, Vol. XII, Nos. 1-6, January, 1936, p. 8).

<sup>13</sup>Year ending June 30, 1902. Average census estimated from monthly data for "admissions" and "total patients treated" (which give the census at the beginning of each month; these figures are then averaged). From *Report of the President of the Board of Health of the Territory of Hawaii for the Eighteen Months Ending December 31, 1902*, p. 170.

<sup>14</sup>Year ending June 30, 1903. Average census for July 1-December 31, 1902, estimated as above (footnote 13). Average census for January 1-June 30, 1903 estimated by averaging hospital censuses on first of each month. From *Report of the President of the Board of Health of the Territory of Hawaii for the Eighteen Months Ending December 31, 1902*, p. 300, and *Report of the President of the Board of Health of the Territory of Hawaii for the Six Months Ending June 30, 1903*, p. 113.

<sup>15</sup>Year ending June 30. Average census is actually the mean average of the first-of-month censuses. From *Reports of the President of the Board of Health of the Territory of Hawaii, 1904-1909*.

<sup>16</sup>Estimated by averaging January 1, 1910 and January 1, 1911 censuses.

<sup>17</sup>Calculated from average census and bed capacity.



Table 2 (Continued)  
SERVICES & FACILITIES  
THE QUEEN'S HOSPITAL  
Honolulu, Hawaii  
1859-1947

YEAR	BEDS <sup>1</sup>	% OCCUPANCY	AVERAGE CENSUS	ADMISSIONS <sup>2</sup>	AVERAGE DAYS STAY <sup>3</sup>	BIRTHS
1921	N.A.	N.A.	126	3740	12.5	N.A.
1922	N.A.	N.A.	141	3788	13.	N.A.
1923	187	80	148	4336	12.5	193
1924	249 <sup>18</sup>	65 <sup>18</sup>	162	4628	12.4	N.A.
1925	285 <sup>19</sup>	60	171	4987	12.2	339
1926	274	64 <sup>17</sup>	175	5589	11.2	365
1927	274	64 <sup>17</sup>	174	5736	10.8	344
1928	263	63 <sup>17</sup>	166	6554	9.08	413
1929	258	66 <sup>17</sup>	171	7189	8.55	457
1930	258	69 <sup>17</sup>	178	6850	9.3	382
1931	284	64 <sup>17</sup>	181	7608	8.54	482
1932	282	53 <sup>17</sup>	150	6538	8.17	524
1933	264	55	143	5874	8.17	501
1934	264 <sup>20</sup>	62.1 <sup>17</sup>	164	6718	8.7	591
1935	254	72.0 <sup>17</sup>	183	7392	8.98	629
1936	300 <sup>*</sup>	65.0 <sup>17</sup>	195	8097	8.62	695
1937	300	72.0 <sup>17</sup>	216	8718	8.87	770
1938	284	83.8 <sup>17</sup>	238	9409	9.05	881
1939	284	77.42	240	10301	8.36	1196
1940	284	84.65	267.5	11808	8.18	1428
1941	290	92.	300.5	12660	8.60	1485
1942	300	102.7 <sup>17</sup>	308.2	13373	8.27	1750
1943	312	98.6 <sup>17</sup>	307.5	13408	8.21	1978
1944	305	88.5	269.9	13326	7.45	1944
1945	384	78.9	302.9	15019	7.36	2081
1946	384	79.9 <sup>21</sup>	307.1	14174	7.91	1863
1947	400	77.6 <sup>21</sup>	298.2	14455	7.50	2106

<sup>18</sup>End of the year.

<sup>19</sup>Calculated from average census and percent occupied columns.

<sup>20</sup>Rear Admiral Lucius W. Johnson, MC, USN. "Survey of Honolulu Hospitals," Public Health Committee of the Chamber of Commerce of Honolulu, reprinted from *Hawaii Medical Journal*, November-December 1944.

<sup>21</sup>Includes persons in hospital at beginning of year.

N.A. Not available.

Source: Annual reports of The Queen's Hospital, 1910-1943; questionnaire returned by the hospital, April 1948; and miscellaneous sources given in footnotes.

Table 3  
NUMBER OF HOSPITALS BY TYPE  
TERRITORY OF HAWAII AND CONTINENTAL UNITED STATES  
1928-1947<sup>1</sup>

YEAR	ALL HOSPITALS		GENERAL HOSPITALS				T. B. SANATORIA		OTHER HOSPITALS	
	U. S.	T. H.	TERRITORY OF HAWAII			TOTAL	U. S.	T. H.	U. S.	T. H.
			U. S.	METROPOL- ITAN <sup>2</sup>	NON-METRO- POLITAN					
1928	6825	42	4361	35	4	31	508	4	1956	3
1929	6665	41	4268	34	4	30	502	4	1895	3
1930	6719	35	4302	28	4	24	515	4	1902	3
1931	6613	36	4309	28	4	24	509	4	1795	4
1932	6562	39	4305	31	4	27	512	4	1745	4
1933	6437	38	4237	30	4	26	497	4	1703	4
1934	6334	41	4198	33	4	29	495	4	1641	4
1935	6246	41	4257	33	4	29	496	4	1493	4
1936	6189	40	4207	32	4	28	506	4	1476	4
1937	6128	40	4245	32	4	28	508	4	1375	4
1938	6166	42	4286	34	4	30	493	4	1387	4
1939	6226	42	4356	34	4	30	480	4	1390	4
1940	6291	50	4432	42	5	37	479	4	1380	4
1941	6358	48	4518	40	5	35	477	4	1363	4
1942	6345	46	4557	38	5	33	468	4	1320	4
1943	6655	45	4885	37	5	32	455	4	1315	4
1944	6611	43	4833	35	5	30	453	4	1325	4
1945	6511	43	4744	35	5	30	449	4	1318	4
1946	6280	43	4523	35	5	30	450	4	1307	4
1947 <sup>3</sup>	4	41	4	33	5	28	4	4	4	4

<sup>1</sup>Data confined to hospitals registered with the A.M.A. Territorial data omit Waimano Home and military and leprosy hospitals.

<sup>2</sup>Located in the two largest cities (Honolulu and Hilo). Includes Kuakini during years when it was not registered.

<sup>3</sup>Hospitals listed in 1946 registration.

<sup>4</sup>Not available at time of compilation.

Source: Annual hospital numbers of the *Journal of the American Medical Association* (1928-1946) and Territorial Department of Health (1947). Territorial data for 1947 based on surviving hospitals recognized by the A.M.A. in 1946.



Table 4  
AVERAGE BED CAPACITY OF HOSPITALS BY TYPE OF HOSPITAL  
TERRITORY OF HAWAII AND CONTINENTAL UNITED STATES  
1928-1947<sup>1</sup>

YEAR	ALL HOSPITALS		GENERAL HOSPITALS		TUBERCULOSIS SANATORIA		OTHER HOSPITALS	
	U. S.	T. H.	U. S.	T. H.	U. S.	T. H.	U. S.	T. H.
1928	131	68	83	41	122	203	239	200
1929	136	70	84	42	122	211	258	200
1930	142	80	86	48	128	211	273	211
1931	147	82	89	48	130	222	292	184
1932	155	85	92	50	136	226	315	210
1933	160	88	91	52	142	229	334	214
1934	165	82	94	48	142	221	356	222
1935	172	82	95	49	142	210	402	228
1936	177	87	96	51	146	218	420	243
1937	184	90	97	53	151	222	462	255
1938	188	88	99	52	154	227	476	253
1939	192	91	102	55	158	231	485	264
1940	195	81	104	48	163	241	497	270
1941	208	84	118	49	173	242	520	274
1942	218	95	130	56	176	247	536	321
1943	248	94	174	58	176	250	547	274
1944	262	98	192	59	176	259	547	274
1945	267	100	194	56	175	261	560	324
1946	234	103	142	59	185	257	569	333
1947	<sup>2</sup>	114	<sup>2</sup>	63	<sup>2</sup>	297	<sup>2</sup>	354

<sup>1</sup>Mean average, computed by dividing total beds by number of hospitals.

<sup>2</sup>Data not available at time of compilation.

Source: Calculated from annual hospital numbers of the *Journal of the American Medical Association* (1928-1946) and Territorial Board of Health data (1947). Territorial data exclude Waimano Home, military and leprosy hospitals, and all institutions not registered with the A.M.A., but include Kuakini for years when it was not registered.

Table 5  
AVERAGE BED CAPACITY OF GENERAL HOSPITALS BY LOCATION  
TERRITORY OF HAWAII, 1928-1947<sup>1</sup>

YEAR	TOTAL <sup>2</sup>	METROPOLITAN			TOTAL <sup>2</sup>	NON-METROPOLITAN			
		TOTAL <sup>2</sup>	HONOLULU	HILO		HONOLULU CO.	HAWAII CO.	MAUI CO.	KAUAI CO.
1928	41	125	192	58	30	30	20	53	29
1929	42	124	189	58	31	31	20	53	29
1930	48	129	141	<sup>3</sup>	34	35	23	66	30
1931	48	134	150	<sup>3</sup>	34	37	22	62	32
1932	50	149	157	<sup>3</sup>	36	37	22	63	32
1933	52	140	144	<sup>3</sup>	38	36	25	76	33
1934	48	140	146	<sup>3</sup>	35	32	23	57	32
1935	49	138	145	<sup>3</sup>	36	36	24	61	35
1936	51	140	145	<sup>3</sup>	39	38	27	62	35
1937	53	156	162	<sup>3</sup>	39	37	27	65	34
1938	52	155	160	<sup>3</sup>	38	38	28	56	31
1939	55	157	162	<sup>3</sup>	41	39	30	56	42
1940	48	133	166	84	36	34	27	50	36
1941	49	133	168	81	37	36	27	53	37
1942	56	154	195	91	41	32	29	65	36
1943	58	154	195	92	43	40	31	62	38
1944	59	168	211	105	41	35	30	58	44
1945	56	156	189	105	40	35	30	54	42
1946	59	178	221	112	39	35	29	53	42
1947	63	191	243	112	40	37	29	53	60

<sup>1</sup>Mean average, computed by dividing total beds by number of hospitals.

<sup>2</sup>That is, the average for all general hospitals in these areas.

<sup>3</sup>Only one hospital (94 to 143 beds).

Source: Calculated from annual hospital numbers of the *Journal of the American Medical Association* (1928-1946) and Territorial Board of Health data (1947). Excludes institutions not registered with the A.M.A., Waimano Home, and military and leprosy hospitals.



Table 6

NUMBER OF HOSPITALS BY NUMBER OF BEDS AND TYPE OF SERVICE  
TERRITORY OF HAWAII, 1928-1947

		TYPE OF SERVICE OF HOSPITAL BY NUMBER OF BEDS																			
		GENERAL HOSPITALS										TUBERCULOSIS SANATORIA									
		ALL HOSPITALS					TOTAL					NON-METROPOLITAN					OTHER HOSPITALS				
YEAR	TOTAL	1- 35- 100- 250 &					1- 35- 100- 250 &					1- 35- 100- 250 &					1- 35- 100- 250 &				
		1- 34	35- 99	100- 249	OVER 250	TOTAL	1- 34	35- 99	100- 249	OVER 250	TOTAL	1- 34	35- 99	100- 249	OVER 250	TOTAL	1- 34	35- 99	100- 249	OVER 250	TOTAL
1928	42	25	11	3	3	35	24	8	2	1	4	1	1	1	1	31	23	7	1	0	4
1929	41	23	10	5	3	34	22	9	2	1	4	1	1	1	1	30	21	8	1	0	4
1930	35	17	10	5	3	28	17	8	2	1	4	0	2	1	1	24	17	6	1	0	4
1931	36	18	10	5	3	28	17	8	2	1	4	0	2	1	1	24	17	6	1	0	4
1932	39	20	9	7	3	31	19	7	4	1	4	0	1	2	1	27	19	6	2	0	4
1933	38	17	11	7	3	30	16	9	4	1	4	0	1	2	1	26	16	8	2	0	4
1934	41	19	12	7	3	33	18	10	4	1	4	0	1	2	1	29	18	9	2	0	4
1935	41	17	14	7	3	33	16	12	4	1	4	0	1	2	1	29	16	11	2	0	4
1936	40	14	16	7	3	32	13	14	4	1	4	0	1	2	1	28	13	13	2	0	4
1937	40	15	15	7	3	32	14	13	4	1	4	0	1	2	1	28	14	12	2	0	4
1938	42	17	15	7	3	34	16	13	4	1	4	0	1	2	1	30	16	12	2	0	4
1939	42	16	16	7	3	34	15	14	4	1	4	0	1	2	1	30	15	13	2	0	4
1940	50	22	18	7	3	42	21	16	4	1	5	1	1	2	1	37	20	15	2	0	4
1941	48	20	18	7	3	40	19	16	4	1	5	1	1	2	1	35	18	15	2	0	4
1942	46	17	18	8	3	38	16	16	5	1	5	0	2	2	1	33	16	14	3	0	4
1943	45	14	20	8	3	37	13	18	5	1	5	0	2	2	1	32	13	16	3	0	4
1944	43	14	18	8	3	35	13	16	5	1	5	0	1	3	1	30	13	15	2	0	4
1945	43	16	15	9	3	35	15	14	5	1	5	0	1	3	1	30	15	13	2	0	4
1946	43	15	15	10	3	35	14	15	5	1	5	0	1	3	1	30	14	14	2	0	4
1947	41	13	16	9	3	33	12	16	4	1	5	0	1	3	1	28	12	15	1	0	4

<sup>1</sup>Hospitals in the two largest cities (Honolulu and Hilo).

Source: Annual hospital numbers of the *Journal of the American Medical Association* (1928-1946) and the Territorial Board of Health (1947). Data exclude establishments not registered with the American Medical Association, Waimano Home, and military and leprosy hospitals.

Table 7  
HOSPITAL BEDS BY TYPE OF HOSPITAL  
TERRITORY OF HAWAII AND CONTINENTAL UNITED STATES, 1928-1947<sup>1</sup>

YEAR	ALL HOSPITALS		GENERAL HOSPITALS		TUBERCULOSIS SANATORIA		OTHER HOSPITALS	
	U. S.	T. H.	U. S.	T. H.	U. S.	T. H.	U. S.	T. H.
1928	893	2845	363	1433	62	812	467	600
1929	907	2871	357	1426	61	845	489	600
1930	956	2816	372	1337	66	845	518	634
1931	974	2968	384	1340	66	890	524	738
1932	1014	3308	396	1562	70	905	549	841
1933	1027	3327	387	1555	71	916	570	856
1934	1048	3342	393	1573	70	883	585	886
1935	1076	3359	406	1609	70	840	600	910
1936	1097	3479	403	1638	74	870	620	971
1937	1125	3618	412	1708	77	890	636	1020
1938	1161	3678	425	1757	76	907	660	1014
1939	1195	3833	445	1854	76	925	674	1054
1940	1226	4057	462	2014	78	965	686	1078
1941	1324	4026	533	1962	82	968	709	1096
1942	1384	4389	594	2117	82	989	707	1283
1943	1649	4222	851	2130	80	998	719	1094
1944	1730	4208	926	2074	80	1037	724	1097
1945	1739	4308	923	1968	79	1044	738	1296
1946	1469	4424	641	2064	83	1027	744	1333
1947	<sup>2</sup>	4687	<sup>2</sup>	2083	<sup>2</sup>	1189	<sup>2</sup>	1415

<sup>1</sup>United States data in thousands; these figures may not add to apparent totals because of rounding.

<sup>2</sup>Not available at time of compilation.

Source: Annual hospital numbers of the *Journal of the American Medical Association* (1928-1946) and Territorial Board of Health (1947). Data for hospitals registered with the American Medical Association only, and excluding certain related types of institution.

Table 8  
TOTAL BEDS IN GENERAL HOSPITALS BY LOCATION  
TERRITORY OF HAWAII, 1928-1947

YEAR	TOTAL	METROPOLITAN <sup>1</sup>			NON-METROPOLITAN				
		TOTAL	HONOLULU	HILO	TOTAL	HONOLULU CO.	HAWAII CO.	MAUI CO.	KAUAI CO.
1928	1433	500	383	117	933	180	235	316	202
1929	1426	495	378	117	931	186	225	318	202
1930	1337	517	423	94	820	141	232	265	182
1931	1340	535	449	86	805	142	224	248	191
1932	1562	597	470	127	965	147	246	377	195
1933	1555	558	433	125	997	144	275	382	196
1934	1573	562	437	125	1011	162	255	402	192
1935	1609	554	434	120	1055	180	267	366	242
1936	1638	559	434	125	1079	189	271	374	245
1937	1708	622	485	137	1086	187	274	390	235
1938	1757	620	480	140	1137	229	311	444	153
1939	1854	628	485	143	1226	232	298	446	250
1940	2014	666	499	167	1348	241	355	501	251
1941	1962	667	505	162	1295	245	349	479	222
1942	2117	768	586	182	1349	224	320	587	218
1943	2130	770	586	184	1360	240	336	556	228
1944	2074	842	632	210	1232	210	326	521	175
1945	1968	778	568	210	1190	210	329	483	168
1946	2064	889	664	225	1175	210	322	477	166
1947	2083	953	728	225	1130	223	314	473	120

<sup>1</sup>Hospitals in the two largest cities (Honolulu and Hilo).

Source: Annual hospital numbers of the *Journal of the American Medical Association* (1928-1946) and Territorial Board of Health (1947). Data exclude institutions not registered with the A.M.A., military hospitals, Waimano Home, Kalihi Receiving Station, and all establishments in Kalawao County.



Table 9  
HOSPITAL BEDS PER 1,000 POPULATION, BY TYPE OF HOSPITAL  
TERRITORY OF HAWAII AND CONTINENTAL UNITED STATES  
1928-1947<sup>1</sup>

YEAR	ALL HOSPITALS		GENERAL HOSPITALS				T. B. SANATORIA		OTHER HOSPITALS	
	U. S.	T. H.	TERRITORY OF HAWAII				U. S.	T. H.	U. S.	T. H.
			U. S.	TOTAL	METROPOL- ITAN <sup>2</sup>	NON-METRO- POLITAN				
1928	7.4	8.2	3.0	4.1	4.0	4.2	0.5	2.3	3.9	1.7
1929	7.4	8.0	2.9	4.0	3.8	4.1	0.5	2.4	4.0	1.7
1930	7.8	7.6	3.0	3.6	3.4	3.8	0.5	2.3	4.2	1.7
1931	7.9	7.9	3.1	3.6	3.4	3.7	0.5	2.4	4.2	2.0
1932	8.1	8.7	3.2	4.1	3.8	4.4	0.6	2.4	4.4	2.2
1933	8.2	8.8	3.1	4.1	3.5	4.5	0.6	2.4	4.5	2.3
1934	8.3	8.8	3.1	4.2	3.6	4.6	0.6	2.3	4.6	2.3
1935	8.5	8.7	3.2	4.2	3.5	4.7	0.6	2.2	4.7	2.4
1936	8.6	8.9	3.1	4.2	3.5	4.7	0.6	2.2	4.8	2.5
1937	8.7	9.1	3.2	4.3	3.8	4.7	0.6	2.2	4.9	2.6
1938	8.9	8.9	3.3	4.3	3.6	4.7	0.6	2.2	5.1	2.5
1939	9.1	9.2	3.4	4.5	3.7	5.0	0.6	2.2	5.1	2.5
1940	9.3	9.5	3.5	4.7	3.4	5.9	0.6	2.3	5.2	2.5
1941	10.0	8.7	4.0	4.2	3.0	5.3	0.6	2.1	5.3	2.4
1942	10.3	9.3	4.4	4.5	3.4	5.5	0.6	2.1	5.2	2.7
1943	12.1	8.7	6.3	4.4	3.3	5.5	0.6	2.1	5.3	2.3
1944	12.5	8.6	6.7	4.2	3.5	4.9	0.6	2.1	5.2	2.2
1945	12.4	8.6	6.6	3.9	2.7	5.6	0.6	2.1	5.3	2.6
1946	10.4	8.5	4.5	4.0	3.0	5.2	0.6	2.0	5.3	2.6
1947	<sup>3</sup>	8.9	<sup>3</sup>	4.0	3.2	5.0	<sup>3</sup>	2.3	<sup>3</sup>	2.7

<sup>1</sup>1000 X Total beds.

<sup>1</sup>That is. Population Data confined to institutions registered with the A.M.A. Territorial data exclude Waimano Home and military and leprosy hospitals.

<sup>2</sup>Located in the two largest cities (Honolulu and Hilo).

<sup>3</sup>Not available at time of compilation.

Source: Annual hospital numbers of the *Journal of the American Medical Association* (1928-1946), and Territorial Department of Health (1947); using population estimates of the U. S. Bureau of the Census and Territorial Department of Health.

Table 10  
BASSINETS IN HOSPITALS, BY TYPE OF HOSPITAL  
CONTINENTAL UNITED STATES AND TERRITORY OF HAWAII  
1928-1947

YEAR	ALL HOSPITALS		GENERAL HOSPITALS		TUBERCULOSIS SANATORIA		ALL OTHER HOSPITALS	
	U. S.	T. H.	U. S.	T. H.	U. S.	T. H.	U. S.	T. H.
1928	43,313	67	38,339	57	0	4	4,974	6
1929	47,939	71	42,715	63	53	2	5,171	6
1930	49,584	75	43,941	73	18	2	5,625	0
1931	51,494	107	45,434	105	41	2	6,019	0
1932	52,232	148	46,588	146	34	2	5,610	0
1933	52,464	191	47,008	155	30	4	5,426	32
1934	53,026	207	47,856	174	<sup>1</sup>	3	<sup>1</sup>	30
1935	53,310	226	48,757	186	58	4	4,495	36
1936	54,225	250	49,604	211	36	3	4,585	36
1937	55,566	262	51,668	222	33	4	3,865	36
1938	56,747	250	52,924	217	41	3	3,782	30
1939	58,764	263	55,183	233	38	0	3,543	30
1940	61,939	295	58,073	265	44	0	3,822	30
1941	66,163	311	61,732	281	99	0	4,332	30
1942	71,448	350	67,115	300	116	0	4,217	50
1943	77,134	367	72,839	302	112	0	4,183	65
1944	80,791	406	76,570	335	38	0	4,183	71
1945	83,131	384	78,919	309	54	0	4,158	75
1946	84,145	410	79,534	325	36	0	4,575	85
1947	<sup>2</sup>	396	<sup>2</sup>	309	<sup>2</sup>	0	<sup>2</sup>	87

<sup>1</sup>Bassinets in tuberculosis sanatoria plus all other hospitals numbered 5,170.

<sup>2</sup>Not available at time of compilation.

Source: Annual hospital numbers of the *Journal of the American Medical Association* (1928-1946) and Territorial Department of Health (1947). Territorial data exclude military hospitals, Waimano Home, Kalihi Receiving Station, and all establishments in Kalawao County.

Table 11  
BASSINETS IN GENERAL HOSPITALS, BY LOCATION  
TERRITORY OF HAWAII, 1928-1947

YEAR	TOTAL	METROPOLITAN <sup>1</sup>			NON-METROPOLITAN				
		TOTAL	HONOLULU	HILO	TOTAL	HONOLULU CO.	HAWAII CO.	MAUI CO.	KAUAI CO.
1928	57	24	18	6	33	8	6	7	12
1929	63	24	18	6	39	8	6	11	14
1930	73	34	28	6	39	8	6	11	14
1931	105	34	28	6	71	12	13	27	19
1932	146	48	30	18	98	16	15	46	21
1933	155	52	34	18	103	20	19	40	24
1934	174	47	29	18	127	21	30	52	24
1935	186	47	31	16	139	17	33	59	30
1936	211	49	33	16	162	28	44	60	30
1937	222	53	35	18	169	28	47	63	31
1938	217	58	40	18	159	33	38	68	20
1939	233	63	45	18	170	35	36	66	33
1940	265	66	48	18	199	37	51	76	35
1941	281	84	66	18	197	38	51	75	33
1942	300	99	76	23	201	38	49	81	33
1943	302	105	82	23	197	33	55	73	36
1944	335	129	106	23	206	33	74	74	25
1945	309	117	94	23	192	33	56	74	29
1946	325	135	108	27	190	32	56	73	29
1947	309	135	108	27	174	25	55	73	21

<sup>1</sup>Hospitals located in either of the two largest cities (Honolulu and Hilo).

Source: Annual hospital numbers of the *Journal of the American Medical Association* (1928-1946) and Territorial Department of Health (1947). Data exclude institutions not registered with the A.M.A., military hospitals, Waimano Home, Kalihi Receiving Station, and all establishments in Kalawao County.

Table 12  
AVERAGE CENSUS, HOSPITALS BY TYPE OF SERVICE  
CONTINENTAL UNITED STATES AND TERRITORY OF HAWAII  
1928-1947<sup>1</sup>

YEAR	ALL HOSPITALS		GENERAL HOSPITALS		TUBERCULOSIS SANATORIA		OTHER HOSPITALS	
	U. S.	T. H.	U. S.	T. H.	U. S.	T. H.	U. S.	T. H.
1928	703	<sup>2</sup>	240	<sup>2</sup>	<sup>2</sup>	<sup>2</sup>	<sup>2</sup>	<sup>2</sup>
1929	727	2080	234	824	51	696	442	560
1930	763	2220	240	876	56	701	467	643
1931	775	2212	248	802	56	720	472	690
1932	808	2451	250	932	60	756	498	763
1933	810	2445	232	874	60	771	518	800
1934	830	2491	237	876	60	780	533	835
1935	877	2515	261	938	61	720	555	857
1936	909	2713	272	1036	63	773	574	904
1937	944	2811	288	1095	65	778	591	938
1938	966	2936	293	1150	66	804	607	982
1939	996	2977	308	1144	65	846	623	987
1940	1026	3037	325	1156	67	868	634	1013
1941	1087	3184	364	1253	71	843	653	1088
1942	1126	3114	405	1181	70	815	651	1118
1943	1257	3201	529	1216	65	832	662	1153
1944	1299	3313	570	1206	63	875	666	1232
1945	1405	3333	665	1184	60	923	680	1226
1946	1239	3389	497	1199	62	936	681	1254
1947	<sup>2</sup>	3541	<sup>2</sup>	1252	<sup>2</sup>	947	<sup>2</sup>	1342

<sup>1</sup>U.S. figures in thousands; data may not add to apparent totals because of rounding.

<sup>2</sup>Not available at time of compilation.

Source: Annual hospital numbers of the *Journal of the American Medical Association*, listing hospitals registered with the A.M.A. Territorial data exclude Waimano Home, military hospitals, and all leprosy hospitals (1947 data from Territorial Board of Health).



Table 13  
AVERAGE CENSUS OF GENERAL HOSPITALS BY LOCATION  
TERRITORY OF HAWAII, 1929-1947

YEAR	TOTAL	METROPOLITAN <sup>1</sup>			NON-METROPOLITAN				
		TOTAL	HONOLULU	HILO	TOTAL	HONOLULU CO.	HAWAII CO.	MAUI CO.	KAUAI CO.
1929	824	320	244	76	504	102	102	194	106
1930	876	345	290	55	531	100	112	208	111
1931	802	352	279	73	450	85	104	150	111
1932	932	368	288	80	564	91	113	244	116
1933	874	327	246	81	547	88	126	237	96
1934	876	307	212	95	569	89	120	253	107
1935	938	370	273	97	568	91	130	230	117
1936	1036	420	304	116	616	113	136	232	135
1937	1095	427	323	104	668	124	153	257	134
1938	1150	457	353	104	693	145	156	274	118
1939	1144	467	376	91	677	135	153	271	118
1940	1156	449	367	82	707	133	164	289	121
1941	1253	547	451	96	706	124	160	301	121
1942	1181	590	508	82	591	108	157	211	115
1943	1216	628	536	92	588	115	136	224	113
1944	1206	615	514	101	591	100	138	271	82
1945	1184	630	516	114	554	107	141	221	85
1946	1199	629	523	106	570	108	133	237	92
1947	1252	695	568	127	557	112	155	215	75

<sup>1</sup>Hospitals in the two largest cities (Honolulu and Hilo).

Source: Annual hospital numbers of the *Journal of the American Medical Association* (1929-1946) and Territorial Board of Health (1947). Excludes data for institutions not registered with the A.M.A., Waimano Home, and military and leprosy hospitals.

Table 14  
AVERAGE NUMBER OF PERSONS IN HOSPITALS PER 1,000 POPULATION, BY TYPE OF HOSPITAL  
TERRITORY OF HAWAII AND CONTINENTAL UNITED STATES  
1928-1947<sup>1</sup>

YEAR	ALL HOSPITALS		GENERAL HOSPITALS				T. B. SANATORIA		OTHER HOSPITALS	
	U. S.	T. H.	TERRITORY OF HAWAII				U. S.	T. H.	U. S.	T. H.
			U. S.	TOTAL	METROPOL-ITAN <sup>2</sup>	NON-METROPOLITAN				
1928	5.8	3	2.0	3	3	3	3	3	3	3
1929	6.0	5.8	1.9	2.3	2.5	2.2	0.4	1.9	3.6	1.6
1930	6.2	6.0	2.0	2.4	2.3	2.4	0.5	1.9	3.8	1.7
1931	6.3	5.9	2.0	2.1	2.2	2.1	0.5	1.9	3.8	1.8
1932	6.5	6.4	2.0	2.4	2.3	2.6	0.5	2.0	4.0	2.0
1933	6.4	6.4	1.8	2.3	2.1	2.5	0.5	2.0	4.1	2.1
1934	6.6	6.6	1.9	2.3	2.0	2.6	0.5	2.1	4.2	2.2
1935	6.9	6.5	2.1	2.4	2.3	2.5	0.5	1.9	4.4	2.2
1936	7.1	6.9	2.1	2.6	2.6	2.7	0.5	2.0	4.5	2.3
1937	7.3	7.1	2.2	2.8	2.6	2.9	0.5	2.0	4.6	2.4
1938	7.4	7.1	2.3	2.8	2.7	2.9	0.5	2.0	4.7	2.4
1939	7.6	7.2	2.4	2.8	2.7	2.8	0.5	2.0	4.8	2.4
1940	7.8	7.1	2.5	2.7	2.3	3.1	0.5	2.0	4.8	2.4
1941	8.2	6.8	2.7	2.7	2.5	2.9	0.5	1.8	4.9	2.3
1942	8.3	6.6	3.0	2.5	2.6	2.4	0.5	1.7	4.8	2.4
1943	9.2	6.6	3.9	2.5	2.7	2.4	0.5	1.7	4.9	2.4
1944	9.4	6.7	4.1	2.5	2.5	2.4	0.5	1.8	4.8	2.5
1945	10.0	6.6	4.8	2.4	2.2	2.6	0.4	1.8	4.9	2.4
1946	8.8	6.5	3.5	2.3	2.1	2.5	0.4	1.8	4.8	2.4
1947	3	6.7	3	2.4	2.3	2.5	3	1.8	3	2.6

1000 X Average census.

<sup>1</sup>That is, Population Data only for institutions registered with the A.M.A. Territorial data exclude Waimano Home and military and leprosy hospitals.

<sup>2</sup>Located in the two largest cities, Honolulu and Hilo.

<sup>3</sup>Data not available at time of compilation.

Source: Annual hospital numbers of the *Journal of the American Medical Association* (1928-1946), and Territorial Department of Health (1947); using population estimates of U. S. Bureau of the Census and Territorial Department of Health.

Table 15  
AVERAGE PERCENTAGE OCCUPANCY, HOSPITALS BY TYPE  
CONTINENTAL UNITED STATES AND TERRITORY OF HAWAII  
1928-1947<sup>1</sup>

YEAR	ALL HOSPITALS		GENERAL HOSPITALS		TUBERCULOSIS SANATORIA		ALL OTHER HOSPITALS	
	U. S.	T. H.	U. S.	T. H.	U. S.	T. H.	U. S.	T. H.
1928	78.7	<sup>2</sup>	66.0	<sup>2</sup>	<sup>2</sup>	<sup>2</sup>	<sup>2</sup>	<sup>2</sup>
1929	80.1	72	65.5	58	82.7	82	90.4	93
1930	79.8	79	64.7	66	85.5	83	90.0	101
1931	79.6	75	64.4	60	85.1	81	90.1	93
1932	79.7	74	63.3	60	85.4	84	90.8	91
1933	78.8	73	59.9	56	85.3	84	91.0	93
1934	79.2	75	60.3	56	85.2	88	91.2	94
1935	81.4	75	64.3	58	85.4	86	92.5	94
1936	82.9	78	67.4	63	85.8	89	92.5	93
1937	84.0	78	70.0	64	84.4	87	93.0	92
1938	83.2	80	68.9	65	87.1	89	91.9	97
1939	83.4	78	69.2	62	86.2	91	92.4	94
1940	83.7	75	70.3	57	85.6	90	91.0	94
1941	82.1	79	68.2	64	85.7	87	92.1	99
1942	81.4	71	68.2	56	85.0	82	92.0	87
1943	76.2	76	62.2	57	81.8	83	92.2	105
1944	75.1	79	61.6	58	78.9	84	92.0	112
1945	80.8	77	72.0	60	75.8	88	92.2	95
1946	84.4	77	77.4	58	74.4	91	91.5	94
1947	<sup>2</sup>	76	<sup>2</sup>	60	<sup>2</sup>	80	<sup>2</sup>	95

<sup>1</sup>Percentage occupancy calculated by formula, Average % Occ. =  $\frac{\text{Average census.}}{\text{Total beds}}$

<sup>2</sup>Not available at time of compilation.

Source: Annual hospital numbers of the *Journal of the American Medical Association* (1928-1946) and Territorial Board of Health (1947). Territorial data exclude military hospitals, Waimano Home, Kalihi Receiving Station, and all establishments in Kalawao County.

Table 16  
AVERAGE PERCENTAGE OCCUPANCY, GENERAL HOSPITALS BY LOCATION  
TERRITORY OF HAWAII, 1929-1947<sup>1</sup>

YEAR	TOTAL	METROPOLITAN <sup>2</sup>			NON-METROPOLITAN				
		TOTAL	HONOLULU	HILO	TOTAL	HONOLULU CO.	HAWAII CO.	MAUI CO.	KAUAI CO.
1929	58	65	65	65	54	55	45	61	52
1930	66	67	69	59	65	71	48	78	61
1931	60	66	62	85	56	60	46	60	58
1932	60	62	61	63	58	62	46	63	59
1933	56	59	57	65	55	61	46	62	49
1934	56	55	49	76	56	55	47	63	56
1935	58	67	63	81	54	51	49	63	48
1936	63	75	70	93	57	60	50	62	55
1937	64	69	67	76	62	66	56	66	57
1938	65	74	74	74	61	63	50	62	77
1939	62	74	78	64	55	58	51	61	47
1940	57	67	74	49	52	55	46	58	48
1941	64	82	89	59	55	51	46	63	55
1942	56	77	87	45	44	48	49	36	53
1943	57	82	91	50	43	48	40	40	50
1944	58	73	81	48	48	48	42	52	47
1945	60	81	91	54	47	51	43	46	51
1946	58	71	79	47	49	51	41	50	55
1947	60	73	78	56	49	50	49	45	62

<sup>1</sup>Percentage occupancy calculated by formula, Average % Occ. =  $\frac{\text{Average census.}}{\text{Total beds}}$

<sup>2</sup>Hospitals in the two largest cities (Honolulu and Hilo).

Source: Annual hospital numbers of the *Journal of the American Medical Association* (1929-1946) and Territorial Board of Health (1947). Data exclude institutions not registered with the A.M.A., military hospitals, Waimano Home, Kalihi Receiving Station, and all establishments in Kalawao County.



Table 17  
HOSPITAL ADMISSIONS BY TYPE OF HOSPITAL  
TERRITORY OF HAWAII AND CONTINENTAL UNITED STATES  
1931-1947<sup>1</sup>

YEAR	ALL HOSPITALS		GENERAL HOSPITALS		TUBERCULOSIS SANATORIA <sup>2</sup>		OTHER HOSPITALS	
	U. S.	T. H.	U. S.	T. H.	U. S.	T. H.	U. S.	T. H.
1931	7156	31053	6322	27270	81	906	754	2877
1932	7228	35769	6304	31858	93	923	831	2988
1933	7038	35233	6072	31099	84	1119	872	3015
1934	7147	36387	6292	31857	82	1160	773	3370
1935	7710	38062	6868	33546	86	1245	756	3271
1936	8647	43690	7756	38456	99	1346	792	3888
1937	9222	45493	8350	40162	102	1192	770	4139
1938	9421	47524	8546	42241	101	1133	774	4150
1939	9879	49766	9018	44391	91	593	770	4782
1940	10088	52984	9219	47637	91	534	777	4813
1941	11596	55253	10647	48202	101	659	848	6392
1942	12546	52596	11634	45422	102	692	810	6482
1943	15375	59814	14455	52219	92	711	828	6884
1944	16037	57003	15060	49634	88	719	878	6650
1945	16257	58949	15228	51585	86	731	943	6633
1946	15153	60626	14052	51725	100	703	1002	8198
1947	<sup>3</sup>	65198	<sup>11</sup>	54894	<sup>3</sup>	846	<sup>3</sup>	9458

<sup>1</sup>Data for U. S. in thousands; may not add to apparent totals because of rounding.

<sup>2</sup>Maui County Farm and Sanatorium (Kula Sanatorium), which before 1938 also rendered general services, classified under "tuberculosis sanatoria."

<sup>3</sup>Data not available at time of compilation.

Source: Annual hospital numbers of the *Journal of the American Medical Association* (1931-1946) and Territorial Board of Health (1947). Registered hospitals only. Territorial data omit military and leprosy hospitals and Waimano Home.

Table 18  
ADMISSIONS TO GENERAL HOSPITALS, BY LOCATION  
TERRITORY OF HAWAII, 1931-1947

YEAR	TOTAL	METROPOLITAN <sup>1</sup>			NON-METROPOLITAN				
		TOTAL	HONOLULU	HILO	TOTAL	HONOLULU CO.	HAWAII CO.	MAUI CO.	KAUAI CO.
1931	27270	11596	10432	1164	15674	3254	3900	5450	3070
1932	31858	12410	10952	1458	19448	3598	4100	8300	3450
1933	31099	11166	9720	1446	19933	3181	4250	8863	3639
1934	31857	10439	8932	1507	21418	3460	5250	9038	3670
1935	33546	12059	10058	2001	21487	3560	5140	8568	4219
1936	38456	14671	12339	2332	23785	3778	5898	9424	4685
1937	40162	15612	13206	2406	24550	3800	5150	10650	4950
1938	42241	16504	14098	2406	25737	4852	6388	10815	3682
1939	44391	18394	16198	2196	25997	4857	4767	11429	4944
1940	47637	19085	16174	2911	28552	5014	5835	11955	5748
1941	48202	21206	18166	3040	26996	4789	5739	11687	4781
1942	45422	22486	19719	2767	22936	4926	5181	8778	4051
1943	52219	26954	23670	3284	25265	5137	5240	10457	4431
1944	49634	24953	21659	3294	24681	4810	5563	10948	3360
1945	51585	27606	23257	4349	23979	5670	5213	9574	3522
1946	51725	26691	23063	3628	25034	5342	5404	10527	3761
1947	54894	29818	25171	4647	25076	5765	5351	10586	3374

<sup>1</sup>Hospitals in the two largest cities (Honolulu and Hilo).

Source: Annual hospital numbers of the *Journal of the American Medical Association* (1931-1946) and Territorial Board of Health (1947). Data omit institutions not registered with the A.M.A., Waimano Home, and military and leprosy hospitals. Data estimated in several cases.

Table 19  
YEARLY HOSPITAL ADMISSIONS PER 1,000 POPULATION, BY TYPE OF HOSPITAL  
TERRITORY OF HAWAII AND CONTINENTAL UNITED STATES  
1931-1947<sup>1</sup>

YEAR	ALL HOSPITALS		GENERAL HOSPITALS				T. B. SANATORIA <sup>2</sup>		OTHER HOSPITALS	
	U. S.	T. H.	TERRITORY OF HAWAII				U. S.	T. H.	U. S.	T. H.
			U. S.	TOTAL	METROPOL- ITAN <sup>3</sup>	NON-METRO- POLITAN				
1931	58	83	51	73	74	72	0.7	2.4	6	8
1932	58	94	50	84	78	88	0.7	2.4	7	8
1933	56	93	48	82	71	90	0.7	2.9	7	8
1934	57	96	50	84	66	96	0.7	3.1	6	9
1935	61	99	54	87	76	95	0.7	3.2	6	9
1936	68	111	61	98	91	103	0.8	3.4	6	10
1937	71	115	65	101	96	105	0.8	3.0	6	10
1938	72	116	66	103	97	106	0.8	2.8	6	10
1939	75	120	69	107	108	107	0.7	1.4	6	12
1940	76	124	70	112	96	125	0.7	1.3	6	11
1941	87	119	80	104	95	111	0.8	1.4	6	14
1942	93	111	86	96	98	94	0.8	1.5	6	14
1943	113	124	106	108	114	102	0.7	1.5	6	14
1944	116	116	109	101	103	99	0.6	1.5	6	14
1945	116	117	109	103	96	113	0.6	1.5	7	13
1946	107	117	100	99	90	112	0.7	1.4	7	16
1947	<sup>4</sup>	124	<sup>4</sup>	105	100	110	<sup>4</sup>	1.6	<sup>4</sup>	18

<sup>1</sup>That is,  $\frac{1000 \times \text{Admissions}}{\text{Population}}$ . Data confined to institutions registered with the A.M.A. Territorial data exclude Waimano Home and military and leprosy hospitals.

<sup>2</sup>Maui County Farm and Sanatorium (Kula Sanatorium), which rendered general services until 1938, classified as "tuberculosis."

<sup>3</sup>Located in the two largest cities (Honolulu and Hilo).

<sup>4</sup>Data not available at time of compilation.

Source: Annual hospital numbers of the *Journal of the American Medical Association* (1931-1946), and Territorial Department of Health (1947); using population estimates of the U. S. Bureau of the Census and Territorial Department of Health.

Table 20  
AVERAGE LENGTH OF STAY IN DAYS, HOSPITALS BY TYPE  
CONTINENTAL UNITED STATES AND TERRITORY OF HAWAII  
1931-1947<sup>1</sup>

YEAR	ALL HOSPITALS		GENERAL HOSPITALS		TUBERCULOSIS SANATORIA <sup>2</sup>		ALL OTHER HOSPITALS	
	U. S.	T. H.	U. S.	T. H.	U. S.	T. H.	U. S.	T. H.
1931	40.	26.0	14.	10.7	254.	290.0	229.	87.5
1932	40.8	25.1	14.5	10.7	233.9	299.8	219.4	93.5
1933	42.0	25.3	13.9	10.3	261.0	251.5	216.9	96.8
1934	42.4	25.0	13.8	10.0	264.2	245.4	251.6	90.4
1935	41.5	24.1	13.9	10.2	257.4	211.1	267.8	95.6
1936	37.3	22.7	12.8	9.9	233.3	210.2	265.1	85.1
1937	37.4	22.6	12.6	10.0	232.2	238.2	280.4	82.7
1938	37.4	22.5	12.5	9.9	239.9	259.0	285.9	86.4
1939	36.8	21.8	12.5	9.4	263.8	520.7	295.2	75.3
1940	37.2	21.0	12.9	8.9	269.7	594.9	298.6	77.0
1941	34.2	21.0	12.5	9.5	253.9	466.9	281.1	62.1
1942	32.8	21.6	12.7	9.5	251.7	429.9	293.3	63.0
1943	29.8	19.5	13.4	8.5	260.0	427.1	291.9	61.1
1944	29.7	21.3	13.9	8.9	261.3	445.4	277.6	67.8
1945	31.5	20.6	15.9	8.4	253.1	460.9	263.4	67.5
1946	29.9	20.4	12.9	8.5	226.6	486.0	248.0	55.8
1947	<sup>3</sup>	19.8	<sup>3</sup>	8.3	<sup>3</sup>	408.5	<sup>3</sup>	51.8

<sup>1</sup>Average length of stay determined by formula, Average days stay =  $\frac{365 \times \text{average census}}{\text{Admissions}}$ .

<sup>2</sup>Maui County Farm and Sanatorium (Kula Sanatorium) also rendered general service until 1938, so that comparability of data is lessened.

<sup>3</sup>Data not available at time of compilation.

Source: Annual hospital numbers of the *Journal of the American Medical Association* (1931-1946) and Territorial Health Department (1947). Territorial data exclude military hospitals, Waimano Home, Kalihi Receiving Station, and all establishments in Kalawao County.



Table 21  
AVERAGE LENGTH OF STAY IN DAYS, GENERAL HOSPITALS  
TERRITORY OF HAWAII BY LOCATION, 1931-1947<sup>1</sup>

YEAR	TOTAL	METROPOLITAN <sup>2</sup>			NON-METROPOLITAN				
		TOTAL	HONOLULU	HILO	TOTAL	HONOLULU CO.	HAWAII CO.	MAUI CO.	KAUAI CO.
1931	10.7	11.1	9.8	22.9	10.5	9.5	9.7	10.0	13.2
1932	10.7	10.9	9.6	20.1	10.6	9.3	10.1	10.8	12.3
1933	10.3	10.7	9.2	20.4	10.0	10.1	10.8	9.8	9.6
1934	10.0	10.7	8.7	23.0	9.7	9.4	8.3	10.2	10.6
1935	10.2	11.2	9.9	17.7	9.6	9.3	9.2	9.8	10.1
1936	9.9	10.5	9.0	18.2	9.5	10.9	8.4	9.0	10.5
1937	10.0	10.0	8.9	15.8	9.9	11.9	10.8	8.8	9.9
1938	9.9	10.1	9.1	15.8	9.8	10.9	8.9	9.2	11.7
1939	9.4	9.3	8.5	15.1	9.5	10.1	11.7	8.7	8.7
1940	8.9	8.6	8.3	10.3	9.1	9.7	10.3	8.8	7.7
1941	9.5	9.4	9.1	11.5	9.5	9.5	10.2	9.4	9.2
1942	9.5	9.6	9.4	10.8	9.4	8.0	11.1	8.8	10.4
1943	8.5	8.5	8.3	10.2	8.5	8.2	9.5	7.8	9.3
1944	8.9	9.0	8.7	11.2	8.8	7.6	9.1	9.1	8.9
1945	8.4	8.3	8.1	9.6	8.4	6.9	9.9	8.4	8.8
1946	8.5	8.6	8.3	10.7	8.3	7.4	9.0	8.2	8.9
1947	8.3	8.5	8.2	10.0	8.1	7.1	10.6	7.4	8.1

<sup>1</sup>Length of stay determined by formula, Average days stay =  $\frac{365 \times \text{average census}}{\text{Admissions}}$

<sup>2</sup>The two largest cities (Honolulu and Hilo).

Source: Annual hospital numbers of the *Journal of the American Medical Association* (1931-1946) and Territorial Health Department (1947). Data exclude institutions not registered with the A.M.A., military hospitals, Waimano Home, Kalihi Receiving Station, and all establishments in Kalawao County.

Table 22  
SERVICES AND FACILITIES OF "ALLIED SPECIAL" HOSPITALS  
TERRITORY OF HAWAII, 1928-1947<sup>1</sup>

YEAR	TOTAL BEDS	% OCCUPANCY	AVERAGE CENSUS	ADMISSIONS	AVERAGE DAYS STAY	BASSINETS
1928	76	...	...	....	....	6
1929	76	63	48	....	....	0
1930	110	59	65	....	....	0
1931	138	64	88	2610	12.3	0
1932	138	65	90	2735	12.0	0
1933	138	71	98	2789	12.8	32
1934	138	70	96	3107	11.3	30
1935	153	61	93	3036	11.2	36
1936	155	63	97	3629	9.8	36
1937	153	76	116	3845	11.0	36
1938	147	72	106	3847	10.1	30
1939	154	79	121	4495	9.8	30
1940	152	74	112	4524	9.1	30
1941	170	79	135	6038	8.2	30
1942	153	88	135	6150	8.0	50
1943	168	83	139	6609	7.7	65
1944	171	78	134	6425	7.6	71
1945	196	64	125	6366	7.2	75
1946	233	66	154	7859	7.2	85
1947	255	70	179	9111	7.2	87

<sup>1</sup>Three hospitals are included, all of them located in Honolulu: Kapiolani Mat. & Gyn. Hospital, Kauikeolani Children's Hospital, and Shriners' Hospital for Crippled Children (data not available before 1931).

Source: Annual hospital numbers of the *Journal of the American Medical Association* (1928-1946) and Territorial Board of Health (1947).

Table 23  
PERCENTAGE OF TOTAL BIRTHS OCCURRING IN HOSPITALS  
UNITED STATES AND TERRITORY OF HAWAII  
1934-1947

YEAR	CONTINENTAL UNITED STATES				TERRITORY OF HAWAII <sup>6</sup>
	A. M. A. HOSPITALS <sup>1</sup>	BIRTH-REGISTRATION STATES <sup>2</sup>			
		TOTAL	URBAN <sup>3</sup>	RURAL <sup>4</sup>	
1934	32.3	N.A.	N.A.	N.A.	34.2
1935	35.7	N.A.	N.A.	N.A.	N.A.
1936	38.8	N.A.	N.A.	N.A.	44.2
1937	42.3	44.8	N.A.	N.A.	50.1
1938	44.9	48.0	N.A.	N.A.	57.0
1939	48.5	51.1	77.6	31.5	63.5
1940	51.5	55.8	80.5	36.5	70.
1941	55.9	61.2	84.0	42.3	76.5
1942	59.5	67.9	84.4	44.8	82.4
1943	65.6	72.1	86.9	51.2	87.6
1944	68.7	75.6	89.1	56.9	90.1
1945	72.0	78.8	90.8	61.4	91.2
1946	N.A.	N.A.	N.A.	N.A.	92.1
1947	N.A.	N.A.	N.A.	N.A.	93.8

<sup>1</sup>Births reported in all U. S. hospitals registered by the American Medical Association (annual hospital numbers of the *Journal of the American Medical Association*) as a percentage of total births in birth-registration states (48 states since 1933; reported by *Statistical Abstract of the United States, 1947*).

<sup>2</sup>Births reported in all (including unregistered) U. S. birth-registration area hospitals as a percentage of total births in that area (from *Vital Statistics of the United States*, Part II, for each year, 1937-1944, and Part I, 1945).

<sup>3</sup>Cities of 10,000 or more population only in 1939, 1940 and 1941.

<sup>4</sup>Including cities of under 10,000 population in 1941.

<sup>5</sup>From Table 24. For fiscal years ending June 30th.

N.A. Not available.



Table 24  
LIVE BIRTHS BY PLACE OF DELIVERY AND PLACE OF USUAL RESIDENCE  
TERRITORY OF HAWAII, 1934-1947

FISCAL YEAR ENDING JUNE 30	TERRITORY OF HAWAII				HONOLULU <sup>1</sup>				RURAL OAHU <sup>2</sup>				HILO				RURAL HAWAII <sup>3</sup>				MAUI COUNTY <sup>4</sup>				KAUAI COUNTY							
	PERCENTAGE		PERCENTAGE		TOTAL NUMBER	PERCENTAGE		PERCENTAGE		TOTAL NUMBER	PERCENTAGE		PERCENTAGE		TOTAL NUMBER	PERCENTAGE		PERCENTAGE		TOTAL NUMBER	PERCENTAGE		PERCENTAGE		TOTAL NUMBER	PERCENTAGE		PERCENTAGE				
	TOTAL HOSPI- TALS	ELSE- WHERE	IN	ELSE- WHERE		TOTAL HOSPI- TALS	ELSE- WHERE	IN	ELSE- WHERE		TOTAL HOSPI- TALS	ELSE- WHERE	IN	ELSE- WHERE		TOTAL HOSPI- TALS	ELSE- WHERE	IN	ELSE- WHERE		TOTAL HOSPI- TALS	ELSE- WHERE	IN	ELSE- WHERE		TOTAL HOSPI- TALS	ELSE- WHERE	IN	ELSE- WHERE	TOTAL NUMBER	IN	ELSE- WHERE
1934	9,431	34.2	65.8	N.A.	40	60	N.A.	N.A.	75	472	31	69	N.A.	N.A.	1,473	19	81	N.A.	N.A.	1,540	49	51	N.A.	N.A.	866	24	76	N.A.	N.A.			
1935	9,252	N.A.	N.A.	N.A.	N.A.	3,790	N.A.	N.A.	N.A.	1,260	N.A.	N.A.	N.A.	N.A.	531	N.A.	N.A.	N.A.	N.A.	1,562	N.A.	N.A.	N.A.	N.A.	825	N.A.	N.A.	N.A.	N.A.			
1936 <sup>5</sup>	8,958	44.2	55.8	46	54	3,662	46	54	35	65	434	47	53	1,383	28	72	33	67	1,467	60	40	746	46	54	746	46	54	748	53	47		
1937 <sup>6</sup>	8,761	50.1	49.9	50	50	3,605	50	50	42	58	402	50	50	1,321	33	67	43	57	1,460	68	32	748	53	47	748	53	47	748	53	47		
1938 <sup>5</sup>	8,975	57.0	43.0	56	44	3,844	56	44	50	50	403	58	42	1,289	43	57	43	57	1,437	74	26	756	61	39	756	61	39	756	61	39		
1939 <sup>5</sup>	9,033	63.5	36.5	63	37	3,937	63	37	58	42	367	64	36	1,234	47	53	47	53	1,426	79	21	772	68	32	772	68	32	772	68	32		
1940	9,523	70.	30.	N.A.	N.A.	4,244	N.A.	N.A.	N.A.	N.A.	512	N.A.	N.A.	N.A.	1,210	N.A.	N.A.	N.A.	1,461	N.A.	N.A.	780	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.		
1941	9,603	76.5	23.5	N.A.	N.A.	4,463	N.A.	N.A.	N.A.	N.A.	518	N.A.	N.A.	N.A.	1,137	N.A.	N.A.	N.A.	1,389	N.A.	N.A.	788	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.		
1942	10,377	82.4	17.6	N.A.	N.A.	5,307	N.A.	N.A.	N.A.	N.A.	567	N.A.	N.A.	N.A.	1,003	N.A.	N.A.	N.A.	1,266	N.A.	N.A.	729	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.		
1943	10,977	87.6	12.4	N.A.	N.A.	6,275	N.A.	N.A.	N.A.	N.A.	552	N.A.	N.A.	N.A.	898	N.A.	N.A.	N.A.	1,188	N.A.	N.A.	670	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.		
1944	12,211	90.1	9.9	N.A.	N.A.	7,182	N.A.	N.A.	N.A.	N.A.	678	N.A.	N.A.	N.A.	929	N.A.	N.A.	N.A.	1,180	N.A.	N.A.	663	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.		
1945	12,597	91.2	8.8	N.A.	N.A.	7,551	N.A.	N.A.	N.A.	N.A.	641	N.A.	N.A.	N.A.	935	N.A.	N.A.	N.A.	1,166	N.A.	N.A.	680	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.		
1946	11,945	92.1	7.9	7.9	92.1	7.9	92.1	7.9	91.8	8.2	601	90.8	9.2	88.3	876	90.8	11.7	1,022	93.6	6.4	603	96.1	3.9	603	96.1	3.9	603	96.1	3.9	603	96.1	3.9
1947	14,050	93.8	6.2	93.8	6.3	8,168	93.7	6.3	93.5	6.5	681	95.7	4.3	90.8	930	95.7	9.2	1,252	94.3	5.7	674	96.5	3.5	674	96.5	3.5	674	96.5	3.5	674	96.5	3.5

<sup>1</sup>Honolulu city.

<sup>2</sup>City and County of Honolulu exclusive of Honolulu city.

<sup>3</sup>Hawaii County exclusive of Hilo city.

<sup>4</sup>Including Kalawao County.

<sup>5</sup>Percentages calculated according to place of birth rather than place of usual residence.  
N.A. Not Available.

Source: For 1934-1939 and 1941-1947, annual reports of Territorial Board of Health; for 1940, *Bureau of Vital Statistics Report for Fiscal Year 1940*. Percentages for cities and counties were calculated from data given by the source for 1934, 1936-1940, and for the Territory in 1934.

Table 25

CORRELATIONS BETWEEN PER CAPITA BUYING POWER AND VARIOUS HOSPITAL SERVICES  
TERRITORY OF HAWAII, 1933-1941 and 1946 and 1947<sup>1</sup>

CORRELATED ITEM	RHO VALUES			
	ALL HOSPITALS	TOTAL	GENERAL HOSPITALS	
			METROPOLITAN	NON-METROPOLITAN
Beds per 1,000 population	.08	-.06	-.47	.80
Average census per 1,000 population	.30	.25	.07	.31
Admissions per 1,000 population <sup>2</sup>	.81	.69	.55	.88
Number of hospitals	.59	.59	...	...
Average bed capacity of hospitals	.41	.45	...	...
Average percent occupancy	.41	.36	...	...
Average length of stay <sup>2</sup>	-.95	-.87	-.89	-.72

<sup>1</sup>Per capita buying power = Total taxable income ÷ Population ÷ Consumers' price index. War years (1942-1945) omitted because of their abnormal character. Correlation from ranks (rho) chosen in preference to other methods because of approximate nature of data and greater ease of computation. High positive or negative correlation does not necessarily indicate a cause-effect relationship.

<sup>2</sup>These high correlations may be partly explained by the coincidental secular trends in local economic expansion and worldwide hospital advances (toward shorter length of stay and more admissions). Adjustment for these factors would undoubtedly reveal a less impressive relationship between per capita buying power and hospital usage.

Source: Buying power from *Business Service*, Honolulu Chamber of Commerce, July 1948; hospital data calculated from annual hospital numbers of the *Journal of the American Medical Association* (1928-1946), and Territorial Department of Health (1947). Data exclude Waimano Home, military and leprosy hospitals, and all establishments not registered with the A. M. A.

Table 26

TOTAL HOSPITAL PERSONNEL AND SPECIALIZED SERVICES  
TERRITORY OF HAWAII, 1947

TYPE OF HOSPITALS	NO. OF HOSPITALS <sup>1</sup>	PERSONNEL						SPECIALIZED SERVICES			
		RESIDENTS	INTERNS	LAB. TECHNICIANS	REGISTERED NURSES	STUDENT NURSES	PRACT. NURSES & ATT.	CLINICAL LAB.	X-RAY DEPT.	PATHOLOGIST	ROENTGENOLOGIST
Total hospitals <sup>1</sup>	44	32	21	56	664	344	755	31	39	11	9
Total general	36	20	19	40	482	330	454	23	31	7	5
<i>Metropolitan</i>	8	14	19	20	336	330	165	5	8	4	3
Honolulu	3	14	19	15	297	330	110	3	3	3	3
Hilo	5	0	0	5	39	0	55	2	5	1	0
<i>Non-Metropolitan</i>	28	6	0	20	146	0	289	18	23	3	2
Rural Oahu	5	2	0	2	31	0	38	2	4	0	1
Rural Hawaii	12	1	0	4	32	0	74	6	9	0	0
Maui Co.	9	2	0	12	62	0	149	8	8	2	0
Kauai Co.	2	1	0	2	21	0	28	2	2	1	1
Tuberculosis	4	9	0	9	64	Varies	196	4	4	1	1
All other	4	5	2	10	130	14	152	4	4	3	3
Allied special	3	5	2	8	119	14	44	3	3	2	2
Mental	1	0	0	2	11	0	108	1	1	1	1

<sup>1</sup>Includes all civilian hospitals, exclusive of those concerned with leprosy, Waimano Home and convalescent nursing homes. Also excludes Ewa and Kahuku Hospitals, which did not return data. Three hospitals in Hilo, one in Kealahou, and one in Wahiawa, not registered with the A. M. A. in 1946, are included. Personnel shared by Kula Sanatorium and Kula General Hospital are not duplicated in the totals for the Territory, although repeated in the subtotals.

Source: Questionnaires returned to Territorial Department of Health, Division of Hospital Planning, 1948 (see Table 60).



Table 27  
PERSONNEL PER HOSPITAL  
TERRITORY OF HAWAII, 1947<sup>1</sup>

TYPE OF HOSPITAL	AVERAGE NUMBER OF BEDS PER HOSPITAL	AVERAGE NUMBER OF PERSONS PER HOSPITAL					
		RESIDENTS	INTERNS	LAB. TECH- NICIANS	REGISTERED NURSES	STUDENT NURSES	PRACTICAL NURSES & ATTENDANTS
Total hospitals	107	0.7	0.5	1.3	15.1	7.8	17.2
Total general	59	0.6	0.5	1.1	13.4	9.2	12.6
<i>Metropolitan</i>	124	1.8	2.4	2.5	42.0	41.2	20.6
Honolulu	243	4.7	6.3	5.0	99.0	110.0	36.7
Hilo	52	0	0	1.0	7.8	0	11.0
<i>Non-metropolitan</i>	41	0.2	0	0.7	5.2	0	10.3
Rural Oahu	40	0.4	0	0.4	6.2	0	7.6
Rural Hawaii	28	0.1	0	0.3	2.7	0	6.2
Maui Co.	53	0.2	0	1.3	6.9	0	16.6
Kauai Co.	60	0.5	0	1.0	10.5	0	14.0
Tuberculosis	297	2.2	0	2.2	16.0	Varies	49.0
All other	354	1.2	0.5	2.5	32.5	3.5	38.0
Allied special	85	1.7	0.7	2.7	39.7	4.7	14.7
Mental	1160	0	0	2.0	11.0	0	108.0

<sup>1</sup>Includes all civilian hospitals, exclusive of those concerned with leprosy, Waimano Home and convalescent nursing homes. Also excludes Ewa and Kahuku Hospitals, which did not return data. Three hospitals in Hilo, one in Kealahou, and one in Wahiawa, not registered with the A. M. A. in 1946, are included. Personnel shared by Kula Sanatorium and Kula General Hospital are not duplicated in the totals for the Territory, although repeated in the subtotals.

Source: Questionnaires returned to Territorial Department of Health, Division of Hospital Planning, 1948 (see Tables 26 and 60).

Table 28  
EXTRAPOLATIONS OF FITTED TREND LINES TO CENSUS AND ADMISSIONS  
DATA FOR HOSPITALS IN HAWAII, 1950 and 1955<sup>1</sup>

TYPE OF DATA	TYPE OF HOSPITAL	1947 ACTUAL	ESTIMATED VALUES			
			1950		1955	
			LOW	HIGH	LOW	HIGH
Census per 1,000 population <sup>2</sup>	General <sup>3</sup>	2.4	2.47	2.60	2.65	3.02
	Tuberculosis	1.8	1.76	1.83	1.70	1.89
	All other	2.6	2.62	2.76	2.78	2.97
Admissions per 1,000 population <sup>4</sup>	General	105.	103.1	114.8	103.9	123.0
	Tuberculosis <sup>5</sup>	1.6	1.61	1.79	1.72	20.7
	All other	18.	17.9	17.9	20.6	20.7

<sup>1</sup>Fitted by method of least squares. Straight line trends except where otherwise indicated.

<sup>2</sup>Fitted to data for 1929-47 and 1941-47.

<sup>3</sup>Second-degree parabola fitted to data for 1941-47.

<sup>4</sup>Fitted to data for 1931-47 and 1941-47, except tuberculosis hospitals.

<sup>5</sup>Fitted to data for 1939-47 only.

Table 29  
AVERAGE LENGTH OF STAY (IN DAYS)  
BASED ON HIGH AND LOW ESTIMATES OF FUTURE CENSUS AND ADMISSIONS  
TERRITORY OF HAWAII

COMBINATION OF ESTIMATES USED		GENERAL HOSPITALS <sup>1</sup>		TUBERCULOSIS SANATORIA <sup>2</sup>		ALL OTHER HOSPITALS <sup>3</sup>	
CENSUS PER 1000 POPULATION	ADMISSIONS PER 1000 POPULATION	1950	1955	1950	1955	1950	1955
Low	Low	8.7	9.3	399	361	53.4	49.3
Low	High	7.9	7.9				49.0
High	Low	9.2	10.6	415	401	56.3	52.6
High	High	8.3	9.0				52.4

<sup>1</sup>The 1947 average stay was 8.3 days (lowest on record).

<sup>2</sup>The 1947 average stay was 408.5 days (the lowest since 1939).

<sup>3</sup>The 1947 average stay was 51.8 days (lowest on record).

Table 30  
ESTIMATED TOTAL AVERAGE CENSUS AND ADMISSIONS  
OF HOSPITALS IN HAWAII, 1950 and 1955<sup>1</sup>

TYPE OF DATA	TYPE OF HOSPITAL	1947 ACTUAL	1950		1955	
			LOW	HIGH	LOW	HIGH
Average Census	General	1252	1360	1430	1590	1810
	Tuberculosis	947	970	1010	1020	1130
	All other	1342	1440	1520	1670	1780
Admissions	General	54894	56700	63140	62340	73800
	Tuberculosis	846	890	1030	1030	12420
	All other	9458	9840	12360	12360	12420

<sup>1</sup>Assuming values derived in Table 28 and a population of 550,000 in 1950, 600,000 in 1955. These population estimates were obtained by extrapolating "least squares" trend lines fitted to 1929-1947 (which gave low estimates of 543 and 591 thousands) and 1941-1947 (which gave high estimates of 557 and 609 thousands) population data for the Territory, then averaging the two sets of estimates thus computed.

Table 31  
ESTIMATED TOTAL NUMBER OF BEDS TO BE NEEDED  
IN HOSPITALS IN HAWAII, 1950 and 1955<sup>1</sup>

TYPE OF HOSPITAL	AVERAGE PERCENT OCCUPIED <sup>2</sup>	NUMBER OF BEDS <sup>3</sup>				
		1947 ACTUAL	1950		1955	
			LOW	HIGH	LOW	HIGH
General	65 <sup>4</sup>	2083	2090	2200	2450	2780
Tuberculosis	80 <sup>5</sup>	1189	1210	1260	1280	1410
All other	90 <sup>6</sup>	1415	1600	1690	1860	1980

<sup>1</sup>Assuming values derived in Table 30 regarding estimated total average census and total admissions.

<sup>2</sup>Suggested percentage for 1950 and 1955. This is a value obtained by inspection of recent trends in occupancy in the Territory, as modified by recognition of theoretically optimum occupancy ratios.

<sup>3</sup>As classified by major function of hospital in which they exist (e.g., five general beds in a large tuberculosis sanatorium would be considered as "tuberculosis").

<sup>4</sup>This figure is somewhat higher than the average occupancy data for the Territory in most recent years, but quite close to the typical percentage for metropolitan general hospitals only.

<sup>5</sup>Same as 1947, but lower than preceding years. The mainland percentage has been below 80 since 1944.

<sup>6</sup>This would represent a considerable improvement over both national and local current ratios, which, however, have been admittedly too high (91.5 in U. S., 94 in T. H. in 1946).

Table 32  
ESTIMATED NUMBER OF ADDITIONAL BEDS TO BE NEEDED  
IN HOSPITALS IN HAWAII, 1950 and 1955<sup>1</sup>

TYPE OF HOSPITAL	ESTIMATED ADDITIONAL BEDS NEEDED			
	BY 1950		BY 1955	
	LOW	HIGH	LOW	HIGH
General <sup>2</sup>	7	117	367	697
Tuberculosis	21	71	91	221
All other	185	275	445	565
All hospitals	213	463	903	1483

<sup>1</sup>Based on Table 31. Net additional beds (i.e., new beds exclusive of replacement beds) are given.

<sup>2</sup>An analysis by area is admittedly needed as a basis for any final action, because of the different situations existing in metropolitan and non-metropolitan general hospitals. The figures quoted in this table cover the entire Territory, without regard for spatial distribution.



Table 33  
HOSPITAL FACILITIES  
TERRITORY OF HAWAII, 1928

CITY	HOSPITAL <sup>1</sup>	TYPE <sup>2</sup>	OWNER-SHIP	YEAR ESTAB. <sup>3</sup>	BEDS <sup>4</sup>	BASSINETS
<i>Honolulu County</i>						
Aiea	Aiea	Gen.	Indus.	1898	30	...
Ewa	Ewa Plantation	Gen.	Indus.	1890	36	...
Honolulu	Japanese <sup>5</sup>	Gen.	Indep.	1900	120	...
Honolulu	Kalihi	Lepro.	Terr.	1889	200	...
Honolulu	Kapiolani	Mat.-Gyn.	Indep.	1875	25	...
Honolulu	Kauikeolani	Child.	Indep.	1909	51	6
Honolulu	Leahi Home	TB	Indep.	1901	450	...
Honolulu	Queen's	Gen.	Indep.	1859	263	18
Honolulu <sup>6</sup>	Territorial	Mental	Terr.	1864	524	...
Honolulu	Tripler	Gen.	Army	1912	300	14
Kahuku	Kahuku	Gen.	Indus.	1912	14	...
Pearl City	Waimano Home	Men.-Def.	Terr.	1920	190	...
Pearl Harbor	U. S. Naval	Gen.	Navy	1917	179	...
Schof. Bks.	Station Hosp.	Gen.	Army	1909	275	1
Waialua	Waialua	Gen.	Indus.	1898	30	2
Waianae	Waianae	Gen.	Indus.	....	20	...
Waipahu	Oahu Sugar Co.	Gen.	Indus.	1900	50	6
<i>Hawaii County</i>						
Hakalau	Hakalau Plant.	Gen.	Indus.	....	10	...
Hilo	Hilo Memorial	Gen.	County	1894	94	6
Hilo	Puumaile Home	TB	Terr.	....	80	...
Hilo	Dr. Sasaki's	Gen.	Indiv.	1915	23	...
Honokaa	Honokaa Sugar Co.	Gen.	Indus.	....	25	...
Kealahou	Kona	Gen.	County	....	28	...
Kohala	Kohala	Gen.	County	....	34	2
Laupahoehoe	Papaaloa	Gen.	Indus.	....	9	...
Olaa	Olaa	Gen.	Indus.	....	30	...
Ookala	Ookala	Gen.	Indus.	....	8	...
Paaupau	Paaupau Plant.	Gen.	Indus.	1922	15	...
Paaupau	Paaupau	Gen.	Indus.	1892	8	...
Pahala	Pahala	Gen.	Indus.	1915	23	...
Pepeekeo	Pepeekeo	Gen.	Indus.	....	33	...
Waiohinu	Kauhane	Gen.	County	1925	12	2
<i>Maui County</i>						
Hana	Hana	Gen.	County	....	18	...
Kula	Maui Co. Farm & San.	TB	County	1910	192	4
Lahaina	Pioneer Mill Company	Gen.	Indus.	1908	53	5
Paia	Maui Agric. Co.	Gen.	Indus.	1906	75	...
Pukoo	Ualapue	Gen.	County	1922	20	2
Puunene	Puunene	Gen.	Indus.	1890	100	...
Wailuku	Malulani	Gen.	Church	1884	50	...
<i>Kauai County</i>						
Eleele	Eleele	Gen.	Indus.	1899	36	2
Kealia	Kealia	Gen.	Indus.	1890	24	1
Kealia	Mahelona Mem.	TB	County	1917	90	...
Kilauea	Kilauea Sugar Plant.	Gen.	Indus.	1887	20	...
Koloa	Koloa Sugar Co.	Gen.	Indus.	1911	32	3
Lihue	Lihue	Gen.	Indus.	1894	45	6
Makaweli	Makaweli	Gen.	Indus.	....	25	...
Waimea	Waimea	Gen.	Indep.	1896	20	...
<i>Kalawao County</i>						
Kalaupapa	Kalaupapa Settlement	Lepr.	Terr.	1866	500	...

<sup>1</sup>The original source also gives the type of superintendent (M.D., R.N., or layman), and lists three hospitals giving nurse training (Kapiolani, Japanese, and The Queen's).

<sup>2</sup>Most of the plantation hospitals were classified in the source as "industrial" both in type of service and ownership, but, since they actually rendered general hospital services, they have been listed here as "general" in type.

<sup>3</sup>Often different from date given in other sources.

<sup>4</sup>It was not specified in the source whether "rated capacity" or "bed complement" was meant.

<sup>5</sup>The present Kuakini Hospital.

<sup>6</sup>Moved to Kaneohe in 1930.

Source: "Hospital Service in the United States," *Journal of the American Medical Association*, March 30, 1929, vol. 92, no. 13, p. 1117. Gives only hospitals registered by the A. M. A.

Table 34  
HOSPITAL FACILITIES  
TERRITORY OF HAWAII, 1929

CITY	HOSPITAL	TYPE <sup>1</sup>	OWNER-SHIP	YEAR ESTAB. <sup>2</sup>	BEDS <sup>3</sup>	BASSI-NETS	AV. CENSUS	% OCC. <sup>4</sup>	NO. OF BIRTHS
<i>Honolulu County</i>									
Aiea	Aiea	Gen.	Indus.	1898	30	...	20	67	...
Ewa	Ewa Plant. Co.	Gen.	Indus.	1890	36	...	15	42	...
Honolulu	Japanese <sup>5</sup>	Gen.	Indep.	1900	120	...	76	63	...
Honolulu	Kalihi	Lepro.	Terr.	1889	200	...	145	72	...
Honolulu	Kapiolani	Mat. & Gyn.	Indep.	1875	25	...	20	80	...
Honolulu	Kauikeolani	Child.	Indep.	1909	51	6	28	55	...
Honolulu	Leahi Home	TB	Indep.	1901	440	...	363	83	...
Honolulu	Queen's	Gen.	Indep.	1859	258	18	168	65	453
Honolulu <sup>6</sup>	Territorial	Mental	Terr.	1864	524	...	512	98	...
Honolulu	Tripler	Gen.	Army	1912	300	14	120	40	...
Kahuku	Kahuku	Gen.	Indus.	1912	14	...	8	57	...
Pearl City	Waimano Home	Men.-Def.	Terr.	1920	190	...	115	61	...
Pearl Harbor	U. S. Naval	Gen.	Navy	1917	179	...	59	33	...
Schof. Bks.	Station Hosp.	Gen.	Army	1909	380	12	170	45	...
Waialua	Waialua	Gen.	Indus.	1898	36	2	17	47	17
Waianae	Waianae	Gen.	Indus.	....	20	...	10	50	...
Waipahu	Oahu Sugar Co.	Gen.	Indus.	1900	50	6	32	64	...
<i>Hawaii County</i>									
Hakalau	Hakalau Plant.	Gen.	Indus.	....	10	...	3	30	...
Hilo	Hilo Mem.	Gen.	County	1894	94	6	55	59	...
Hilo	Puumaile	TB	Terr.	1912	100	...	77	77	...
Hilo	Dr. Sasaki's	Gen.	Indiv.	1915	23	...	21	91	...
Honokaa	Honokaa Sugar Co.	Gen.	Indus.	....	25	...	10	40	...
Kealahou	Kona	Gen.	County	....	28	...	...	...	...
Kohala	Kohala	Gen.	County	....	34	2	14	41	...
Laupahoehoe	Papaaloa	Gen.	Indus.	....	9	...	...	...	...
Olaa	Olaa	Gen.	Indus.	....	30	...	11	37	...
Ookala	Ookala	Gen.	Indus.	....	8	...	...	...	...
Paauhau	Paauhau Plant. Co.	Gen.	Indus.	1922	15	...	7	47	...
Pahala	Pahala	Gen.	Indus.	1915	25	2	16	64	10
Pepeekeo	Pepeekeo	Gen.	Indus.	....	33	...	...	...	...
Waiohinu	Kauhane Mem.	Gen.	County	1925	12	2	...	...	...
<i>Maui County</i>									
Hana	Hana	Gen.	County	....	18	...	8	44	...
Kula	Maui Co. Farm & San.	TB	County	1910	200	2	163	82	8
Lahaina	Pioneer Mill Company	Gen.	Indus.	1908	55	9	43	78	...
Paia	Maui Ag. Co.	Gen.	Indus.	1906	75	...	40	53	...
Pukoo	Ualapue	Gen.	County	1922	20	2	3	15	...
Puunene	Puunene	Gen.	Indus.	1890	100	...	...	...	...
Wailuku	Malulani	Gen.	Church	1883	50	...	...	...	...
<i>Kauai County</i>									
Eleele	McBryde Sugar Co.	Gen.	Indus.	1899	37	2	29	78	5
Kealia	Kealia	Gen.	Indus.	1890	24	1	10	42	...
Kealia	Mahelona Mem.	TB	County	1917	105	...	93	89	...
Kilauea	Kilauea Sugar Plant.	Gen.	Indus.	1887	20	...	5	25	...
Koloa	Koloa Sugar Company	Gen.	Indus.	1911	31	3	16	52	14
Lihue	Lihue	Gen.	Indus.	1894	45	6	24	53	...
Makaweli	Makaweli	Gen.	Indus.	....	25	2	12	48	12
Waimea	Waimea	Gen.	N.P.A.	1898	20	...	10	50	...
<i>Kalawao County</i>									
Kalaupapa	Bishop Home for Girls	Inst.	Terr.	....	40	...	...	...	...
Kalaupapa	Kalaupapa Settlement	Lepro.	Terr.	1866	500	...	500	100	...

<sup>1</sup>Several plantation hospitals listed as "industrial" in type in the original source are here given as "general."

<sup>2</sup>In several cases does not agree with dates listed elsewhere.

<sup>3</sup>Not indicated whether "normal" or "actual."

<sup>4</sup>Calculated.

<sup>5</sup>Later named Kuakini.

<sup>6</sup>Moved to Kaneohe in 1930.

Source: "Hospital Service in the United States," *Journal of the American Medical Association*, March 29, 1930, Vol. 94, No. 13, p. 987. Only hospitals registered with the A.M.A. are listed.



Table 35  
HOSPITAL FACILITIES  
TERRITORY OF HAWAII, 1930

CITY	HOSPITAL	TYPE <sup>1</sup>	OWNER-SHIP	YEAR ESTAB. <sup>2</sup>	BEDS <sup>3</sup>	BASSI-NETS	AV. CENSUS	% OCC. <sup>4</sup>
<i>Honolulu County</i>								
Aiea	Aiea <sup>5</sup>	Indus.	Indus.	1898	30	...	25	83
Honolulu	Japanese	Gen.	Indep.	1900	120	...	76	63
Honolulu	Kalihi <sup>6</sup>	Lepro.	Terr.	1889	200	...	145	72
Honolulu	Kapiolani	Mat.-Gyn.	Indep.	1875	50	...	30	60
Honolulu	Kauikeolani <sup>6</sup>	Child.	Indep.	1909	60	...	35	58
Honolulu	Leahi	TB	Indep.	1901	440	...	335	76
Honolulu	Queen's	Gen.	Indep.	1859	258	18	180	70
Honolulu	St. Francis	Gen.	Church	1927	45	10	34	76
Honolulu	Shriners <sup>6</sup>	Orth.	N.P.A.	....	...	...	...	...
Honolulu	Tripler <sup>6</sup>	Gen.	Army	1912	300	14	120	40
Kahuku	Kahuku <sup>6</sup>	Indus.	Indus.	1912	25	...	15	60
Kaneohe	Territorial	Mental	Terr.	1864	524	...	578	110
Pearl City	Waimano Home	Men.-Def.	Terr.	1920	190	...	190	100
Pearl Harbor	U. S. Naval	Gen.	Navy	1917	179	...	59	33
Schof. Bks.	Station Hosp. <sup>5</sup>	Gen.	Army	1909	380	12	170	45
Waialua	Waialua Ag. Co. <sup>5</sup>	Gen.	Indus.	1898	36	2	20	56
Waipahu	Oahu Sugar Co. <sup>5</sup>	Indus.	Indus.	1900	50	6	40	80
<i>Hawaii County</i>								
Hilo	Hilo Memorial	Gen.	County	1894	94	6	55	59
Hilo	Puumaila	TB	Terr.	1912	100	...	77	77
Honokaa	Honokaa Sugar Co. <sup>5</sup>	Indus.	Indus.	1912	25	...	10	40
Kealahakua	Kona	Gen.	County	....	30	...	15	50
Kohala	Kohala	Gen.	County	....	34	2	14	41
Olaa	Olaa <sup>6</sup>	Indus.	Indus.	....	30	...	11	37
Ookala	Ookala	Indus.	Indus.	....	8	...	5	62
Paaubau	Paaubau Plant. Co.,Ltd. <sup>5</sup>	Indus.	Indus.	1922	15	...	7	47
Paauilo	Paauilo <sup>6</sup>	Indus.	Indus.	1892	12	...	8	67
Pahala	Pahala <sup>6</sup>	Indus.	Indus.	1915	25	2	16	64
Pepeekeo	Pepeekeo	Indus.	Indus.	....	33	...	16	48
Waiohinu	Kauhane Mem. <sup>5</sup>	Gen.	County	1925	20	2	10	50
<i>Maui County</i>								
Kula	Maui Co. Farm & San. <sup>5</sup>	TB	County	1910	200	2	188	94
Lahaina	Pioneer Mill Co. <sup>5</sup>	Indus.	Indus.	1908	55	9	43	78
Pukoo	Ualapue <sup>5</sup>	Gen.	County	1922	20	2	5	25
Puunene	Puunene <sup>5</sup>	Indus.	Indus.	1890	100	...	100	100
Wailuku	Malulani	Gen.	County	1883	90	...	60	67
<i>Kauai County</i>								
Eleele	McBryde Sugar Co. <sup>5</sup>	Indus.	Indus.	1899	37	2	29	78
Kealia	Kealia <sup>5</sup>	Indus.	Indus.	1890	24	1	10	42
Kealia	Mahelona Mem.	TB	County	1917	105	...	101	96
Kilauea	Kilauea Sugar Plant. <sup>5</sup>	Indus.	Indus.	1887	20	...	20	100
Koloa	Koloa Sugar Co. <sup>5</sup>	Indus.	Indus.	1911	31	3	16	52
Lihue	Lihue Hosp. <sup>5</sup>	Indus.	Indus.	1894	45	6	24	53
Makaweli	Makaweli	Indus.	Indus.	....	25	2	12	48
<i>Kalawao County</i>								
Kalaupapa	Kalaupapa Settlement <sup>6</sup>	Lepr.	Terr.	1866	500	...	500	100

<sup>1</sup>Many hospitals listed as "industrial" in reality gave general hospital services.

<sup>2</sup>Frequently in disagreement with dates given by other sources.

<sup>3</sup>It was not specified whether "normal beds" or "total beds" were intended.

<sup>4</sup>Calculated.

<sup>5</sup>Has outpatient department.

<sup>6</sup>Used wards in Kauikeolani Children's Hospital.

Source: "Hospital Service in the United States," *Journal of the American Medical Association*, March 28, 1931, Vol. 96, No. 13, p. 1085. Only hospitals registered with the A.M.A. are listed.

Table 36  
HOSPITAL FACILITIES  
TERRITORY OF HAWAII, 1931

CITY	HOSPITAL	TYPE <sup>1</sup>	OWNER-SHIP	RATED BEDS	% OCC. <sup>2</sup>	AV. CENSUS	ADMISSIONS	AV. DAYS STAY <sup>2</sup>	BASSI-NETS	NO. OF BIRTHS
<i>Honolulu County</i>										
Aiea	Aiea <sup>3</sup>	Gen.	Indus.	26	58	15	798	6.9	4	...
Honolulu	Japanese	Gen.	Indep.	120	63	76	....	....	...	...
Honolulu	Kalihi <sup>3</sup>	Lepro.	Terr.	200	72	145	....	....	...	...
Honolulu	Kapiolani	Mat.-Gyn.	Indep.	50	60	30	....	....	...	...
Honolulu	Kauikeolani <sup>3</sup>	Child.	Indep.	60	55	33	1413	8.5	...	...
Honolulu	Leahi Home <sup>3</sup>	TB	Indep.	440	82	360	345	380	...	...
Honolulu	Queen's	Gen.	Indep.	284	60	170	6478	9.6	16	388
Honolulu	St. Francis	Gen.	Church	45	73	33	1154	10.4	12	72
Honolulu	Shriners <sup>3</sup>	Orth.	Frat.	28	89	25	47	194	...	...
Honolulu	Tripler <sup>3</sup>	Gen.	Army	300	55	164	2974	20.1	10	88
Kahuku	Kahuku <sup>3</sup>	Gen.	Indus.	25	60	15	....	....	...	...
Kaneohe	Territorial	Mental	Terr.	600	100	602	267	....	...	...
Pearl City	Waimano Home	Men.-Def.	Terr.	194	100	194	....	....	...	...
Pearl Harbor	U. S. Naval <sup>3</sup>	Gen.	Navy	238	37	89	936	34.7	...	...
Schof. Bks.	Station Hosp. <sup>3</sup>	Gen.	Army	380	45	170	....	....	12	...
Waialua	Waialua <sup>3</sup>	Gen.	Indus.	36	56	20	....	....	2	...
Waipahu	Oahu Sugar Co. <sup>3</sup>	Gen.	Indus.	55	64	35	1086	11.8	6	28
<i>Hawaii County</i>										
Hilo	Hilo Memorial	Gen.	County	86	85	73	1164	22.9	6	85
Hilo	Puumaile	TB	Terr.	100	77	77	....	....	...	...
Honokaa	Honokaa Sugar Co. <sup>3</sup>	Gen.	Indus.	25	40	10	....	....	...	...
Kealahou	Kona	Gen.	County	28	54	15	280	19.6	3	30
Kohala	Kohala	Gen.	County	34	41	14	....	....	2	...
Olaa	Olaa <sup>3</sup>	Gen.	Indus.	30	37	11	....	....	...	...
Ookala	Ookala	Gen.	Indus.	8	62	5	....	....	...	...
Paaupau	Paaupau Plant. Co. Ltd. <sup>3</sup>	Gen.	Indus.	15	47	7	....	....	...	...
Paaupau	Paaupau <sup>3</sup>	Gen.	Indus.	12	42	5	120	15.2	...	...
Pahala	Pahala <sup>3</sup>	Gen.	Indus.	19	84	16	665	8.8	6	...
Pepeekeo	Pepeekeo	Gen.	Indus.	33	48	16	....	....	...	...
Waiohinu	Kauhane Mem.	Gen.	County	20	25	5	188	9.7	2	5
<i>Maui County</i>										
Kula	Maui Co. Farm & San. <sup>3</sup>	TB	County	200	94	188	....	....	2	...
Lahaina	Pioneer Mill Co. <sup>3</sup>	Gen.	Indus.	56	79	44	1583	10.1	9	92
Pukoo	Ualapue <sup>3</sup>	Gen.	County	20	25	5	....	....	2	...
Puunene	Puunene <sup>3</sup>	Gen.	Indus.	100	60	60	2667	8.2	8	147
Wailuku	Malulani	Gen.	County	72	57	41	998	14.9	8	81
<i>Kauai County</i>										
Eleele	McBryde Sugar Co. <sup>3</sup>	Gen.	Indus.	37	78	29	....	....	2	...
Kealia	Kealia <sup>3</sup>	Gen.	Indus.	25	56	14	316	16.2	3	14
Kealia	Mahelona Mem. <sup>3</sup>	TB	County	150	63	95	111	312	...	...
Kilauea	Kilauea Sugar Plant. <sup>3</sup>	Gen.	Indus.	25	36	9	270	12.2	3	30
Koloa	Koloa Sugar Co. <sup>3</sup>	Gen.	Indus.	31	52	16	....	....	3	...
Lihue	Lihue <sup>3</sup>	Gen.	Indus.	45	53	24	....	....	6	...
Makaweli	Makaweli <sup>3</sup>	Gen.	Indus.	28	68	19	480	14.4	2	15
<i>Kalawao County</i>										
Kalaupapa	Kalaupapa Hospital	Lepro.	Terr.	48	38	18	353	18.6	12	15

<sup>1</sup>Some plantation hospitals, here given as "general," were listed as "industrial" in original source.

<sup>2</sup>Calculated.

<sup>3</sup>Has outpatient department.

Source: "Hospital Service in the United States," *Journal of the American Medical Association*, June 11, 1932, Vol. 98, No. 24, p. 2140. Only hospitals registered by the A.M.A. are listed.



Table 37  
HOSPITAL FACILITIES  
TERRITORY OF HAWAII, 1932<sup>1</sup>

CITY	HOSPITAL	TYPE <sup>2</sup>	OWNER- SHIP	RATED BEDS	% OCC. <sup>3</sup>	AV. CENSUS	ADMIS- SIONS	AV. DAYS STAY <sup>3</sup>	BASSI- NETS	STU. NUR.	RN'S FOR NURS- ING
<i>Honolulu County</i>											
Aiea	Aiea Plant. <sup>4</sup>	Gen.	Indus.	26	58	15	722	7.6	4	0	2
Honolulu	Japanese	Gen.	Indep.	130	58	76	....	....	..	0	..
Honolulu	Kalihi	Lepro.	Terr.	200	72	145	....	....	..	0	..
Honolulu	Kapiolani	Mat.-Gyn.	Indep.	50	60	30	....	....	..	0	..
Honolulu	Kauikeolani <sup>4</sup>	Child.	Indep.	60	55	33	1588 <sup>5</sup>	7.6 <sup>5</sup>	..	0	14
Honolulu	Leahi Home <sup>4</sup>	TB	Indep.	440	87	384	358	393	..	0	9
Honolulu	Queen's	Gen.	Indep.	282	62	174	7126	8.9	18	72	37
Honolulu	St. Francis <sup>4</sup>	Gen.	Church	58	66	38	1326	10.5	12	22	5
Honolulu	Shriners <sup>4</sup>	Orth.	Frat.	28	96	27	47	210	..	0	3
Honolulu	Tripler <sup>4</sup>	Gen.	Army	300	57	171	3712	16.9	8	0	18
Kahuku	Kahuku Plant. Co.	Gen.	Indus.	25	60	15	....	....	..	0	..
Kaneohe	Territorial	Mental	Terr.	703	96	673	253	....	..	0	4
Pearl City	Waimano Home	Men.Def.	Terr.	217	88	190	14	....	..	0	..
Pearl Harbor	U. S. Naval <sup>4</sup>	Gen.	Navy	238	54	129	1117	42.3	6	0	7
Schof. Bks.	Station Hosp. <sup>4</sup>	Gen.	Army	350	75	264	6772	14.3	12	0	27
Waialua	Waialua Agric. Co.	Gen.	Indus.	36	47	17	876	7.1	4	0	2
Waipahu	Oahu Sugar Co.	Gen.	Indus.	60	73	44	1400	11.5	8	0	7
<i>Hawaii County</i>											
Hakalau	Hakalau <sup>4</sup>	Gen.	Indus.	25	32	8	492	6.0	2	0	..
Hilo	Hilo Memorial	Gen.	County	127	63	80	1458	20.1	18	0	14
Hilo	Puumaille	TB	Terr.	100	77	77	....	....	..	0	..
Honokaa	Honokaa Sugar Co.	Gen.	Indus.	25	40	10	....	....	..	0	..
Kealahou	Kona	Gen.	County	28	54	15	....	....	3	0	..
Kohala	Kohala	Gen.	County	34	41	14	....	....	2	0	..
Olaa	Olaa	Gen.	Indus.	30	37	11	....	....	..	0	..
Ookala	Ookala	Gen.	Indus.	8	62	5	....	....	..	0	..
Paauhau	Paauhau Plant. Co. <sup>4</sup>	Indus.	Indus.	12	42	5	154	11.9	..	0	1
Paauilo	Paauilo <sup>4</sup>	Gen.	Indus.	12	67	8	193	15.2	..	0	..
Pahala	Hawaiian Agric. Co. <sup>4</sup>	Gen.	Indus.	19	79	15	484	11.3	6	0	2
Pepeekeo	Pepeekeo	Gen.	Indus.	33	48	16	....	....	..	0	..
Waiohinu	Kauhane Mem.	Gen.	County	20	30	6	201	10.9	2	0	2
<i>Maui County</i>											
Hoolehua	Shingle Memorial <sup>4</sup>	Gen.	Church	11	..	...	....	....	4	0	..
Kula	Maui Co. Farm & San. <sup>4</sup>	TB	County	215	93	200	375	195	2	0	10
Lahaina	Pioneer Mill Co. <sup>4</sup>	Gen.	Indus.	56	82	46	1300	13.0	9	0	2
Paia	Maui Agric. Co. <sup>4</sup>	Gen.	Indus.	103	59	61	....	....	10	0	..
Pukoo	Ualapue	Gen.	County	20	25	5	....	....	2	0	..
Puunene	Puunene <sup>4</sup>	Gen.	Indus.	100	66	66	2966	8.1	10	0	5
Wailuku	Malulani	Gen.	County	87	72	63	1187	19.4	11	0	7
<i>Kauai County</i>											
Eleele	McBryde Sugar Co.	Gen.	Indus.	37	78	29	....	....	2	0	..
Kealia	Makee Sugar Co. <sup>4</sup>	Gen.	Indus.	26	46	12	454	9.7	3	0	2
Kealia	Mahelona Mem.	TB	County	150	63	95	....	....	..	0	..
Kilauea	Kilauea Sugar Plant. <sup>4</sup>	Gen.	Indus.	25	60	15	278	19.7	3	0	0
Koloa	Koloa Sugar Co.	Gen.	Indus.	31	52	16	....	....	3	0	..
Lihue	Lihue	Gen.	Indus.	45	53	24	....	....	6	0	..
Makaweli	Haw. Sugar Co.	Gen.	Indus.	31	65	20	557	13.1	4	0	2
<i>Kalawao County</i>											
Kalaupapa	Kalaupapa Hosp. <sup>4</sup>	Lepro.	Terr.	50	30	15	168	32.7	4	0	2

<sup>1</sup>Fiscal years of individual hospitals.

<sup>2</sup>Some plantation hospitals listed in the original source as "industrial," are given below as "general."

<sup>3</sup>Calculated.

<sup>4</sup>Has outpatient department.

<sup>5</sup>The source indicated 5188 admissions, which meant an average length of stay of only 2.3 days. It was assumed that this was a typographical error resulting from the unintentional transposition of two figures.

Source: "Hospital Service in the United States," *Journal of the American Medical Association*, March 25, 1933, Vol. 100, No. 12, p. 971. Only hospitals registered with the A.M.A. are listed.

Table 38  
HOSPITAL FACILITIES  
TERRITORY OF HAWAII, 1933

CITY	HOSPITAL	TYPE <sup>1</sup>	OWNER-SHIP	RATED BEDS	% OCC. <sup>2</sup>	AV. CENSUS	ADMIS-SIONS	AV. DAYS STAY <sup>2</sup>	BASSI-NETS	NO. OF BIRTHS
<i>Honolulu County</i>										
Aiea	Honolulu Plant.	Gen.	Indus.	30	50	15	655	8.4	4	4
Honolulu	Japanese	Gen.	Indep.	120	63	76	....	....	10	...
Honolulu	Kalihi	Lepro.	Terr.	200	72	145	....	....	...	...
Honolulu	Kapiolani	Mat. & Gyn.	Indep.	50	60	30	1168	9.4	32	785
Honolulu	Kauikeolani	Child.	Indep.	60	67	40	1534	9.5	...	...
Honolulu	Leahi Home	TB	Indep.	440	93	409	383	390	...	...
Honolulu	Queen's	Gen.	Indep.	264	53	140	6014	8.5	18	553
Honolulu	St. Francis	Gen.	Church	49	61	30	1203	9.1	6	79
Honolulu	Shriners	Orth.	Frat.	28	100	28	87	117	...	...
Honolulu	Tripler	Gen.	Army	300	57	172	3013	20.8	8	100
Kahuku	Kahuku	Gen.	Indus.	28	61	17	743	8.4	3	78
Kaneohe	Territorial	Mental	Terr.	718	98	702	226	....	...	...
Pearl City	Waimano Home	Men. Def.	Terr.	217	97	210	27	....	...	...
Pearl Harbor	U. S. Naval	Gen.	Navy	238	65	155	1703	33.2	...	...
Schof. Bks.	Station Hosp.	Gen.	Army	350	71	248	6566	13.8	12	100
Waialua	Waialua Agric. Co.	Gen.	Indus.	36	36	13	635	7.5	5	53
Waipahu	Oahu Sugar Co.	Gen.	Indus.	50	86	43	1148	13.7	8	43
<i>Hawaii County</i>										
Hakalau	Hakalau Plant.	Gen.	Indus.	25	36	9	367	9.0	2	11
Hilo	Hilo Memorial	Gen.	County	125	65	81	1446	20.4	18	108
Hilo	Puumaile	TB	Terr.	100	77	77	....	....	...	...
Honokaa	Honokaa Sugar Co.	Gen.	Indus.	40	25	10	....	....	...	...
Kealahou	Kona	Gen.	County	28	54	15	....	....	3	...
Kohala	Kohala	Gen.	County	34	41	14	....	....	2	...
Olaa	Olaa Plant.	Gen.	Indus.	36	56	20	588	12.4	...	8
Ookala	Kaiwiki Sugar Co.	Gen.	Indus.	12	33	4	36	40.5	...	...
Paaupau	Paaupau Plant. Co.	Gen.	Indus.	12	42	5	....	....	...	...
Paaui	Paaui	Gen.	Indus.	12	42	5	50	36.5	...	...
Pahala	Hawaiian Agric. Co.	Gen.	Indus.	22	68	15	521	10.5	6	52
Pepeekeo	Pepeekeo Central	Gen.	Indus.	34	68	23	876	9.6	6	91
Waiohinu	Kauhanu Mem.	Gen.	County	20	30	6	....	....	2	...
<i>Maui County</i>										
Hoolehua	Shingle Memorial	Gen.	Church	12	25	3	98	11.1	4	15
Kula	Maui Co. Farm & San.	TB	County	226	84	190	566	123	4	19
Lahaina	Pioneer Mill Co.	Gen.	Indus.	57	74	42	1603	9.6	9	95
Paia	Maui Agric. Co.	Gen.	Indus.	103	56	58	2590	8.2	10	208
Puunene	Puunene	Gen.	Indus.	120	55	66	3371	7.1	6	336
Wailuku	Malulani	Gen.	County	90	76	68	....	....	11	113
<i>Kauai County</i>										
Eleele	McBryde Sugar	Gen.	Indus.	40	55	22	708	11.3	3	14
Kealia	Makee Sugar Co.	Gen.	Indus.	26	42	11	483	8.3	3	29
Kealia	Mahelona Memorial	TB	County	150	63	95	....	....	...	...
Kilauea	Kilauea Sugar Plant.	Gen.	Indus.	25	32	8	435	6.7	3	28
Koloa	Koloa Sugar Co.	Gen.	Indus.	30	40	12	350	12.5	3	22
Lihue	Lihue	Gen.	Indus.	45	53	24	1047	8.4	6	14
Makaweli	Hawaiian Sugar Co.	Gen.	Indus.	30	63	19	616	11.3	6	26
<i>Kalawao County</i>										
Kalaupapa	Kalaupapa Hosp.	Lepro.	Terr.	50	56	28	192	53.2	12	...

<sup>1</sup>Some plantation hospitals listed in the original source as "industrial," are given as "general."

<sup>2</sup>Calculated.

Source: "Hospital Service in the United States," *Journal of the American Medical Association*, March 31, 1934, Vol. 102, No. 13, p. 1081 f. Number of outpatients for each hospital is also given in the original source. Only hospitals registered by the A.M.A. are listed.



Table 39  
HOSPITAL FACILITIES  
TERRITORY OF HAWAII, 1934<sup>1</sup>

CITY	HOSPITAL	TYPE	OWNER-SHIP	RATED BEDS	% OCC. <sup>2</sup>	AV. CENSUS	ADMISS-IONS	AV. DAYS STAY <sup>2</sup>	BASSI-NETS	NO. OF BIRTHS
<i>Honolulu County</i>										
Aiea	Aiea Plant.	Gen.	N.P.A.	30	33	10	599	6.1	4	16
Honolulu	Japanese	Gen.	N.P.A.	120	...	...	...	...	...	...
Honolulu	Kalihi	Lepro.	Terr.	200	...	...	...	...	...	...
Honolulu	Kapiolani	Mat. & Gyn.	N.P.A.	50	70	35	1363	9.4	30	687
Honolulu	Kauikeolani	Child.	N.P.A.	60	57	34	1665	7.5	...	...
Honolulu	Leahi Home	TB	N.P.A.	440	92	404	313	471	...	...
Honolulu	Queen's	Gen.	Corp.	264	51	134	5874	8.3	18	532
Honolulu	St. Francis	Gen.	Church	53	47	25	1130	8.1	6	80
Honolulu	Shriners	Orth.	Frat.	28	96	27	79	125	...	...
Honolulu	Tripler	Gen.	Army	300	47	140	2882	17.7	12	92
Kahuku	Kahuku Plant. Co.	Gen.	N.P.A.	28	54	15	567	9.7	5	77
Kaneohe	Territorial	Mental	Terr.	748	99	739	263	...	...	...
Pearl City	Waimano Home	Men. Def.	Terr.	221	100	221	8	...	...	...
Pearl Harbor	U. S. Naval	Gen.	Navy	178	72	129	1366	34.5	...	...
Schof. Bks.	Station Hosp.	Gen.	Army	350	60	209	5278	14.5	12	78
Waialua	Waialua Agric. Co.	Gen.	N.P.A.	38	37	14	808	6.3	4	47
Waimanalo	Waimanalo	Gen.	N.P.A.	16	...	...	...	...	...	...
Waipahu	Oahu Sugar Co.	Gen.	N.P.A.	50	84	42	1180	13.0	8	173
<i>Hawaii County</i>										
Hakalau	Hakalau	Gen.	Corp.	25	28	7	360	7.1	2	9
Hilo	Hilo Memorial	Gen.	County	125	76	95	1507	23.0	18	115
Hilo	Puumaile	TB	County	100	...	...	...	...	...	...
Honokaa	Honokaa Sugar Co.	Gen.	N.P.A.	25	...	...	...	...	...	...
Kealahakua	Kona	Gen.	County	28	...	...	...	...	3	...
Kohala	Kohala	Gen.	County	37	49	18	905	7.3	3	82
Olaa	Olaa	Gen.	Corp.	30	77	23	365	23.0	4	9
Ookala	Kaiwiki Sugar Co.	Gen.	Corp.	8	88	7	84	30.4	...	...
Paaupau	Paaupau Plant. Co.	Gen.	Corp.	15	40	6	256	8.6	2	10
Paauiilo	Paauiilo	Gen.	Corp.	13	62	8	302	9.7	2	6
Pahala	Hawaiian Agric. Co.	Gen.	Corp.	19	37	7	712	3.6	6	79
Pepeekeo	Pepeekeo Central	Gen.	Corp.	35	37	13	875	5.4	6	107
Waiohinu	Kauhane Memorial	Gen.	County	20	...	...	...	...	2	...
<i>Maui County</i>										
Hoolehua	Shingle Memorial	Gen.	Church	12	42	5	160	11.4	4	33
Kula	Maui Co. Farm & San.	TB	County	243	88	215	706	111	3	27
Lahaina	Pioneer Mill Co.	Gen.	Corp.	57	79	45	1758	9.3	9	106
Lanai City	Lanai	Gen.	Corp.	20	55	11	420	9.6	4	48
Paia	Paia Hospital	Gen.	N.P.A.	103	...	...	...	...	10	...
Pukoo	Ualapue	Gen.	County	20	...	...	...	...	2	...
Puunene	Puunene	Gen.	Corp.	100	69	69	3037	8.3	12	300
Wailuku	Malulani	Gen.	County	90	71	64	913	25.5	11	118
<i>Kauai County</i>										
Eleele	McBryde Sugar Co.	Gen.	Corp.	35	77	27	1028	9.6	3	54
Kealia	Kealia	Gen.	Corp.	26	50	13	364	13.0	3	33
Kealia	Mahelona Memorial	TB	County	100	81	81	41	721	...	...
Kilauea	Kilauea Sugar Plant.	Gen.	Corp.	20	...	...	...	...	3	...
Koloa	Koloa Sugar Co.	Gen.	Corp.	26	42	11	385	10.4	3	20
Lihue	Lihue	Gen.	N.P.A.	45	...	...	...	...	6	...
Makaweli	Hawaiian Sugar Co.	Gen.	N.P.A.	40	58	23	618	13.6	6	23
<i>Kalawao County</i>										
Kalaupapa	Kalaupapa Hospital	Lepro.	Terr.	50	72	36	168	78.2	6	13

<sup>1</sup>Year ending in late 1934.

<sup>2</sup>Calculated.

Source: "Hospital Service in the United States," *Journal of the American Medical Association*, March 30, 1935, Vol. 104, No. 13, p. 1172. Only hospitals registered by the A.M.A. are listed.

Table 40a  
HOSPITAL FACILITIES  
TERRITORY OF HAWAII, 1935

CITY	HOSPITAL	TYPE	OWNERSHIP	RATED BEDS	AVERAGE CENSUS	ADMIS- SIONS	BASSI- NETS	NO. OF BIRTHS
<i>Honolulu County</i>								
Aiea	Honolulu Plant.	Gen.	Corp.	43	18	654	4	19
Honolulu	Japanese	Gen.	N.P.A.	120	53	1928	3	43
Honolulu	Kalihi	Lepro.	Terr.	200	...	...	...	...
Honolulu	Kapiolani	Mat. & Gyn.	N.P.A.	50	27	1363	36	687
Honolulu	Kauikeolani	Child.	N.P.A.	75	38	1587	...	...
Honolulu	Leahi	TB	N.P.A.	440	405	330	...	...
Honolulu	Queen's	Gen.	Corp.	254	183	6768	18	624
Honolulu	St. Francis	Gen.	Church	60	37	1362	10	129
Honolulu	Shriners	Orth.	N.P.A.	28	28	86	...	...
Honolulu	Tripler	Gen.	Army	300	169	2575	8	70
Kahuku	Kahuku Plant. Co.	Gen.	N.P.A.	28	17	728	3	64
Kaneohe	Territorial	Mental	Terr.	757	764	235	...	...
Pearl City	Waimano Home	Men. Def.	Terr.	209	221	8	...	...
Pearl Harbor	U. S. Naval	Gen.	Navy	262	138	1563	...	...
Schof. Bks.	Station	Gen.	Army	350	...	...	12	...
Waialua	Waialua Agric. Co.	Gen.	N.P.A.	36	17	683	4	72
Waimanalo	Waimanalo	Gen.	County	16	...	...	...	...
Waipahu	Oahu Sugar Co.	Gen.	N.P.A.	57	31	1148	6	31
<i>Hawaii County</i>								
Hakalau	Hakalau	Gen.	N.P.A.	25	10	354	4	22
Hilo	Hilo Memorial	Gen.	County	120	97	2001	16	194
Hilo	Puumaile	TB	County	100	90	78	...	...
Honokaa	Honokaa Sugar Co.	Indus.	N.P.A.	25	...	...	...	...
Kealakekua	Kona County	Gen.	County	30	12	311	6	27
Kohala	Kohala	Gen.	County	37	...	...	3	...
Olaa	Olaa Plant.	Gen.	Corp.	30	...	...	4	...
Ookala	Kaiwiki Sugar Co.	Gen.	N.P.A.	12	3	184	2	12
Paaupau	Paaupau Plant. Co.	Gen.	Corp.	15	...	...	2	...
Paauiilo	Paauiilo	Gen.	N.P.A.	16	7	324	3	16
Pahala	Hawaiian Agric. Co.	Gen.	Corp.	19	11	565	3	81
Pepeekeo	Pepeekeo Central	Gen.	N.P.A.	38	20	1028	4	110
Waiohinu	Kauhane Memorial	Gen.	County	20	...	...	2	...
<i>Maui County</i>								
Hoolehua	Shingle Memorial	Gen.	Church	15	6	207	4	31
Kula	Maui County Farm & San.	Gen. & TB	County	200	150	802	4	38
Lahaina	Pioneer Mill Co.	Gen.	Corp.	57	41	1572	9	133
Lanai City	Lanai	Gen.	Corp.	20	6	475	4	53
Paia	Maui Agric. Co.	Gen.	Corp.	103	...	...	10	...
Puunene	Puunene	Gen.	N.P.A.	100	75	2742	24	298
Wailuku	Malulani	Gen.	County	71	52	1022	8	148
<i>Kauai County</i>								
Eleele	McBryde Sugar Co.	Gen.	N.P.A.	38	26	714	4	45
Kealia	Kealia	Gen.	Corp.	26	14	350	4	49
Kealia	Mahelona	TB	County	100	75	35	...	...
Kilauea	Kilauea Sugar Plant.	Gen.	Corp.	25	9	305	3	20
Koloa	Koloa Sugar Co.	Gen.	N.P.A.	26	11	401	3	27
Lihue	Lihue	Gen.	Corp.	55	24	866	6	25
Makaweli	Hawaiian Sugar Co.	Gen.	Corp.	37	10	665	6	40
Waimea	Waimea	Gen.	N.P.A.	35	23	918	4	52
<i>Kalawao County</i>								
Kalaupapa	Kalaupapa Hosp.	Lepro.	Terr.	50	...	...	6	...

Source: "Hospital Service in the United States," *Journal of the American Medical Association*, March 7, 1936, Vol. 106, No. 10, p. 856. Only hospitals registered by the A.M.A. are listed.



Table 40b  
HOSPITAL FACILITIES  
TERRITORY OF HAWAII, 1935

CITY	HOSPITAL	TYPE	OWNER-SHIP	YR. OPENED <sup>1</sup>	BEDS <sup>2</sup>	% OCC. <sup>3</sup>	AV. CENSUS	ADMIS-SIONS	AV. DAYS STAY <sup>5</sup>	BASSI-NETS	NO. OF BIRTHS
<i>Honolulu County</i>											
Aiea	Aiea Plant. <sup>4</sup>	Gen.	N.P.A.	1898	43	42	18	654	10.0	4	19
Honolulu	Japanese <sup>6</sup>	Gen.	N.P.A.	1900	120	44	53	1928	10.0	3	43
Honolulu	Kalihi	Lepro.	Terr.	1889	200	...	...	...	...	...	...
Honolulu	Kapiolani	Mat. & Gyn.	N.P.A.	1891 <sup>6</sup>	50	54	27	1363	7.2	36	687
Honolulu	Kauikeolani	Child.	N.P.A.	1906	75	51	38	1587	8.7	...	...
Honolulu	Leahi Home <sup>4</sup>	TB	N.P.A.	1900 <sup>7</sup>	440	92	404	330	447	...	3
Honolulu	Queen's	Gen.	N.P.A.	1860	258	71	183	7392	9.3	18	661
Honolulu	St. Francis <sup>4</sup> <sup>8</sup>	Gen.	Church	1927	65	62	40	1362	10.7	10	139
Honolulu	Shriners <sup>4</sup>	Orth.	N.P.A.	1923	28	100	28	86	118	...	...
Honolulu	Tripler <sup>4</sup>	Gen.	Army	1907 <sup>9</sup>	300	56	169	2575	24.0	8	70
Kahuku	Kahuku <sup>4</sup>	Gen.	Plant.	1912	28	61	17 <sup>10</sup>	593	10.5	5	55
Kaneohe	Territorial	Mental	Terr.	1864 <sup>11</sup>	816	94	764	235	...	...	...
Pearl City	Waimano Home	Ment. Def.	Terr.	1920	209	106	221	8	...	...	...
Pearl Harbor	U. S. Naval	Gen.	Navy	1917	262	53	138	1563	29.9	...	...
Schof. Bks.	Station Hosp. <sup>4</sup>	Gen. & Mil.	Army	1929	350	59	205	6123	12.6	14	88
Waialua	Waialua Ag. Co. <sup>4</sup>	Gen.	N.P.A.	1898	36	47	17	683	9.1	4	72
Waimanalo	Waimanalo	Gen.	N.P.A.	....	16	...	...	...	...	...	...
Waipahu	Oahu Sugar Co. <sup>4</sup>	Gen.	N.P.A.	1898	57	54	31	1148	9.9	6	31
<i>Hawaii County</i>											
Hakalau	Hakalau Plant. <sup>4</sup>	Gen.	N.P.A.	1931	25	84	21	354	21.7	2	12
Hilo	Hilo Memorial	Gen.	County	1897 <sup>12</sup>	120	81	97	2001	17.7	16	194
Hilo	Puumaila <sup>4</sup> <sup>13</sup>	TB	County	1912	100	85	85	112	270	...	...
Honokaa	Honokaa Sugar Co.	Gen.	N.P.A.	....	25	...	...	...	...	...	...
Kealahou	Kona	Gen.	Terr.	1909	28	46	13	371	13.6	3	28
Kohala	Kohala County <sup>4</sup>	Gen.	County	1924	37	...	...	...	...	3	...
Olaa	Olaa <sup>4</sup>	Gen.	Plant.	1900	41	61	25	698	13.5	...	17
Ookala	Kaiwiki Sugar Co. <sup>4</sup>	Gen.	N.P.A.	....	12	25	3	184	6.0	2	12
Paaubau	Paaubau Plant. <sup>4</sup>	Gen.	Corp.	1922	15	...	...	...	...	2	...
Paaui	Paaui <sup>4</sup>	Gen.	N.P.A.	1892	16	44	7	324	7.9	3	16
Pahala	Haw'n Agric. Co. <sup>4</sup> <sup>8</sup>	Gen.	Plant.	1915	38	45	17	511	12.1	6	81
Pepeekeo	Pepeekeo Central <sup>4</sup>	Gen.	N.P.A.	1911	38	53	20	1028	7.1	4	110
Waiohinu	Kauhane Mem. <sup>10</sup>	Gen.	County	....	20	...	...	...	...	2	...
<i>Maui County</i>											
Hoolehua	Shingle Memorial <sup>4</sup>	Gen.	Church	1932	14	50	7	303	8.2	4	40
Kula	Maui Co. Farm & San. <sup>4</sup>	Gen. & TB <sup>10</sup>	County	1910	230	65	150	796	68.6	6	38
Lahaina	Pioneer Mill Co. <sup>4</sup>	Gen.	N.P.A.	1908	57	72	41	1572	9.5	9	133
Lanai City	Lanai <sup>4</sup>	Gen.	N.P.A.	1925	20	30	6	475	4.6	4	53
Paia	Maui Agric. Co. <sup>4</sup>	Gen.	Corp.	1897	103	...	...	...	...	10	...
Puunene	Puunene <sup>4</sup>	Gen.	N.P.A.	1912	100	75	75	2742	10.0	24	298
Wailuku	Malulani <sup>4</sup>	Gen.	County	1883	70	74	52	1022	18.6	8	148
<i>Kauai County</i>											
Eleele	McBryde Sugar Co. <sup>4</sup>	Gen.	N.P.A.	1899	38	68	26	714	13.3	4	45
Kealia	Kealia	Gen.	Plant.	1890	26	50	13	373	13.2	4	45
Kealia	Mahelona Memorial	TB	County	1917	100	75	75	35	782	...	...
Kilauea	Kilauea Sugar Plant.	Gen.	N.P.A.	1887	25	36	9	305	10.8	3	20
Koloa	Koloa Sugar Co. <sup>4</sup>	Gen.	N.P.A.	1911	26	42	11	401	10.0	3	27
Lihue	Lihue <sup>4</sup> <sup>8</sup>	Gen.	Plant.	1899	55	45	25	927	10.1	4	40
Makaweli	Haw'n Sugar Co. <sup>4</sup>	Gen.	Assoc.	1886	37	27	10	665	5.5	6	40
Waimea	Waimea <sup>4</sup>	Gen.	N.P.A.	1896	35	66	23	918	9.1	4	52
<i>Kalawao County</i>											
Kalaupapa	Kalaupapa Hosp.	Lepro.	Terr.	1866	50	...	...	...	...	6	...

<sup>1</sup>Not always in agreement with other sources (see tables for 1928, 1929 and 1930).

<sup>2</sup>Not specified as either "normal" or "actual."

<sup>3</sup>Calculated.

<sup>4</sup>Also rendered outpatient service.

<sup>5</sup>Later called Kuakini.

<sup>6</sup>New building, 1929.

<sup>7</sup>Several newer structures.

<sup>8</sup>Data for year ended September 30, 1936.

<sup>9</sup>Earliest beginnings in 1898.

<sup>10</sup>Data from "Hospital Service in the United States," *Journal of the A.M.A.* (106:856) (see Table 40-a).

<sup>11</sup>Located at School and Lanakila Streets, Honolulu, until 1930, when it was moved to Kaneohe.

<sup>12</sup>New buildings, 1925.

<sup>13</sup>Year ended June 30, 1936.

Source: *American and Canadian Hospitals* (Physicians' Record Co., Chicago, 1937, 2d edition), pp. 1300-1306. This source gave a greater variety of information than the corresponding annual hospital number of the *Journal of the A.M.A.* (see Table 40a), including, in many cases, financial data, administrative details, number of nurses, number of physicians, total patient days, and similar data.

Table 41  
HOSPITAL FACILITIES  
TERRITORY OF HAWAII, 1936

CITY	HOSPITAL	TYPE	OWNER- SHIP	BEDS <sup>1</sup>		% OCC. <sup>2</sup>		AV. CEN- SUS	AD- MIS- SIONS	AV. DAYS STAY <sup>2</sup>	BASSI- NETS	NO. OF BIRTHS
				RATED	ACTUAL	RATED	ACTUAL					
Honolulu County												
Aiea	Honolulu Plant.	Gen.	N.P.A.	...	42	...	21	9	702	4.7	4	47
Honolulu	Japanese	Gen.	N.P.A.	120	120	49	49	59	2352	9.2	5	52
Honolulu	Kalihi	Lepro.	Terr.	...	200	...	...	...	...	...	...	...
Honolulu	Kapiolani	Mat. & Gyn.	N.P.A.	50	50	58	58	29	1552	6.8	36	747
Honolulu	Kauikeolani	Child.	N.P.A.	75	75	56	56	42	1981	7.8	...	...
Honolulu	Leahi Home	TB	N.P.A.	440	440	92	92	406	328	447	...	...
Honolulu	Queen's	Gen.	N.P.A.	...	254	...	...	...	...	...	18	...
Honolulu	St. Francis	Gen.	Church	65	60	77	83	50	1890	9.7	10	120
Honolulu	Shriners	Orth.	Frat.	30	30	87	87	26	96	99.1	...	...
Honolulu	Tripler	Gen.	Army	300	400	67	50	201	3247	22.7	6	103
Kahuku	Kahuku Plant. Co.	Gen.	N.P.A.	28	28	71	71	20	654	11.2	6	80
Kaneohe	Territorial	Mental	Terr.	704	816	115	99	807	259	...	...	...
Pearl City	Waimano Home	Men. Def.	Terr.	...	368	...	74	271	113	...	...	...
Pearl Harbor	U. S. Naval	Gen.	Navy	178	178	80	80	143	1724	30.4	...	...
Schof. Bks.	Station	Gen.	Army	350	350	73	73	257	5023	18.7	12	75
Waialua	Waialua Agric. Co.	Gen.	N.P.A.	38	38	58	58	22	904	8.9	10	90
Waimanalo	Waimanalo	Gen.	N.P.A.	...	16	...	...	...	...	...	...	...
Waipahu	Oahu Sugar Co.	Gen.	N.P.A.	85	65	64	83	54	1168	16.9	8	152
Hawaii County												
Hakalau	Hakalau Plant.	Gen.	N.P.A.	25	25	40	40	10	354	10.3	2	12
Hilo	Hilo Memorial	Gen.	County	125	125	93	93	116	2332	18.2	16	178
Hilo	Puumaile	TB	County	100	100	92	92	92	129	261	...	...
Honokaa	Honokaa Plant.	Gen.	N.P.A.	...	25	...	...	...	...	...	...	...
Kealahou	Kona	Gen.	County	...	30	...	...	...	...	...	6	...
Kohala	Kohala Co.	Gen.	County	38	38	50	50	19	893	7.8	6	70
Olaa	Olaa	Gen.	N.P.A.	48	43	60	67	29	697	15.2	10	11
Ookala	Kaiwiki Sugar Co.	Gen.	N.P.A.	10	10	40	40	4	234	6.3	4	23
Paaupau	Paaupau Plant. Co.	Gen.	Corp.	...	15	...	...	...	...	...	2	...
Paaui	Paaui	Gen.	N.P.A.	12	12	...	...	...	1297	...	3	38
Pahala	Hawaiian Agric. Co.	Gen.	Corp.	45	38	33	39	15	620	8.9	6	107
Pepeekeo	Pepeekeo Plant.	Gen.	N.P.A.	40	35	50	57	20	933	7.8	5	113
Maui County												
Hoolehua	Shingle Mem.	Gen.	Church	...	16	...	...	...	398	...	4	56
Kula	Maui Co. Farm & San.	Gen. & TB	Terr.-Co.	...	180	...	77	139	808	63.0	3	46
Lahaina	Pioneer Mill Co.	Gen.	N.P.A.	57	57	79	79	45	1941	8.5	9	98
Lanai City	Lanai	Gen.	Corp.	...	20	...	...	...	...	...	4	...
Paia	Paia Hosp.	Gen.	Corp.	103	103	45	45	46	2507	6.7	10	185
Puunene	Puunene	Gen.	N.P.A.	100	100	70	70	70	2762	9.3	24	242
Wailuku	Malulani	Gen.	County	...	78	...	65	51	1236	15.1	9	150
Kauai County												
Eleele	McBryde Sugar Co.	Gen.	N.P.A.	...	41	...	63	26	756	12.6	4	39
Kealia	Kealia	Gen.	N.P.A.	...	26	...	46	12	427	10.3	3	49
Kealia	Mahelona Memorial	TB	County	150	150	91	91	136	81	615	...	...
Kilauea	Kilauea	Gen.	Corp.	25	25	36	36	9	380	8.7	3	32
Koloa	Koloa Sugar Co.	Gen.	N.P.A.	...	22	...	36	8	383	7.6	3	28
Lihue	Lihue	Gen.	Corp.	...	55	...	45	25	927	9.9	6	40
Makaweli	Hawaiian Sugar Co.	Gen.	N.P.A.	30	40	93	70	28	798	12.8	6	50
Waimea	Waimea	Gen.	N.P.A.	36	36	75	75	27	1014	9.7	5	68
Kalawao County												
Kalaupapa	Kalaupapa Hosp.	Lepro.	Terr.	...	50	...	...	...	...	...	6	...

<sup>1</sup>Rated (or normal) capacity refers to the number of beds for which the hospital was designed; actual number of beds is the number actually set up.

<sup>2</sup>Calculated.

Source: "Hospital Service in the United States," *Journal of the American Medical Association*, March 27, 1937, vol. 108, no. 13, p. 1120 f. Lists only hospitals registered with the A.M.A.



Table 42  
HOSPITAL FACILITIES  
TERRITORY OF HAWAII, 1937

CITY	HOSPITAL	TYPE	OWNER-SHIP	BEDS <sup>1</sup>	% OCC <sup>2</sup>	AV. CENSUS <sup>3</sup>	ADMIS-SIONS <sup>3</sup>	AV. DAYS STAY <sup>2</sup>	BASSI-NETS	NO. OF BIRTHS
<i>Honolulu County</i>										
Aiea	Honolulu Plantation	Gen.	N.P.A.	42	43	18	686	9.6	4	31
Honolulu	Japanese	Gen.	N.P.A.	120	64	77	2843	9.9	5	80
Honolulu	Kalihi	Lepro.	Terr.	200	...	...	...	...	...	...
Honolulu	Kapiolani	Mat. & Gyn.	N.P.A.	50	60	30	1545	7.1	36	808
Honolulu	Kauikeolani	Child.	N.P.A.	75	80	60	2227	9.8	...	...
Honolulu	Leahi Home	TB	N.P.A.	440	92	403	317	464	...	5
Honolulu	Queen's	Gen.	N.P.A.	300	65	195	8097	8.8	20	695
Honolulu	St. Francis	Gen.	Church	65	78	51	2266	8.2	10	164
Honolulu	Shriners	Orth.	Frat.	28	93	26	73	130	...	...
Honolulu	Tripler	Gen.	Army	350	55	193	3067	23.0	7	97
Kahuku	Kahuku Plant. Co.	Gen.	N.P.A.	29	66	19	631	11.0	6	97
Kaneohe	Territorial	Men.	Terr.	867	95	822	294	...	...	2
Pearl City	Waimano Home	Men. Def.	Terr.	368	89	329	55	...	...	4
Pearl Harbor	U. S. Naval	Gen.	Navy	178	80	142	2222	23.3	...	...
Schof. Bks.	Station	Gen.	Army	350	74	258	4153	22.7	12	61
Waialua	Waialua Agric. Co.	Gen.	N.P.A.	38	76	29	946	11.2	10	127
Waimanalo	Waimanalo	Gen.	N.P.A.	16	...	...	...	...	...	...
Waipahu	Oahu Sugar Co.	Gen.	N.P.A.	62	81	50	1213	15.0	8	147
<i>Hawaii County</i>										
Haina	Honokaa Sugar Co.	Gen.	N.P.A.	28	54	15	335	16.3	4	23
Hakalau	Hakalau Plantation	Gen.	N.P.A.	25	32	8	343	8.5	3	15
Hilo	Hilo Memorial	Gen.	County	137	76	104	2406	15.8	18	233
Hilo	Puumaile	TB	County	140	90	126	139	331	...	...
Kealahkekua	Kona	Gen.	County	28	54	15	274	20.0	3	35
Kohala	Kohala County	Gen.	County	38	55	21	884	8.7	6	89
Olaa	Olaa	Gen.	N.P.A.	43	84	36	913	14.4	10	115
Ookala	Kaiwiki Sugar Co.	Gen.	N.P.A.	10	50	5	251	7.3	5	29
Paauhau	Paauhau Plant. Co.	Gen.	N.P.A.	15	...	...	...	...	2	...
Paauilo	Paauilo	Gen.	N.P.A.	14	36	5	...	...	3	16
Pahala	Hawaiian Agric. Co.	Gen.	Corp.	38	55	21	811	9.5	6	98
Pepeekeo	Pepeekeo Central	Gen.	N.P.A.	35	57	20	840	8.7	5	118
<i>Maui County</i>										
Hoolehua	Shingle Memorial	Gen.	Church	17	82	14	501	10.2	6	70
Kula	Kula Sanatorium	Gen. & TB	Terr.-Co.	210	71	149	661	82.3	4	54
Lahaina	Pioneer Mill Co.	Gen.	N.P.A.	57	81	46	2074	8.1	9	132
Lanai City	Lanai	Gen.	N.P.A.	25	52	13	683	6.9	4	63
Paia	Paia Hospital	Gen.	Corp.	103	...	...	...	...	10	...
Puunene	Puunene	Gen.	N.P.A.	100	67	67	2793	8.8	24	293
Wailuku	Malulani	Gen.	County	88	80	70	2501	10.2	10	181
<i>Kauai County</i>										
Eleele	McBryde Sugar Co.	Gen.	N.P.A.	30	17	5	848	2.2	4	26
Kealia	Kealia	Gen.	N.P.A.	24	54	13	358	13.3	4	42
Kealia	Mahelona Memorial	TB	County	100	...	...	75	...	...	...
Kilauea	Kilauea	Gen.	Corp.	25	...	...	...	...	4	...
Koloa	Koloa Sugar Co.	Gen.	N.P.A.	22	55	12	443	9.9	3	31
Lihue	Lihue	Gen.	Corp.	55	58	32	988	11.8	6	44
Makaweli	Hawaiian Sugar Co.	Gen.	N.P.A.	44	68	30	956	11.5	4	70
Waimea	Waimea	Gen.	N.P.A.	35	94	33	955	12.6	6	88
<i>Kalawao County</i>										
Kalaupapa	Leprosy Hospital	Lepro.	Terr.	52	79	41	251	59.6	...	6

<sup>1</sup>Not indicated whether "normal" or "actual."

<sup>2</sup>Calculated.

<sup>3</sup>Excluding newborn infants.

Source: "Hospital Service in the United States," *Journal of the American Medical Association*, March 26, 1938, Vol. 110, No. 13, pp. 959 ff. Lists only hospitals registered by the A.M.A.

Table 43  
HOSPITAL FACILITIES  
TERRITORY OF HAWAII, 1938

CITY	HOSPITAL	TYPE	OWNER-SHIP	BEDS <sup>1</sup>	% OCC. <sup>2</sup>	AV. CENSUS	ADMIS-SIONS	AV. DAYS STAY <sup>2</sup>	BASSI-NETS	NO. OF BIRTHS
<i>Honolulu County</i>										
Aiea	Honolulu Plant.	Gen.	N.P.A.	46	41	19	741	9.4	4	30
Ewa	Ewa Plant. Co.	Gen.	N.P.A.	45	51	23	1076	7.8	6	67
Honolulu	Japanese	Gen.	N.P.A.	120	64	77	2843	9.9	5	80
Honolulu	Kapiolani	Mat. & Gyn.	N.P.A.	44	68	30	1655	6.6	30	799
Honolulu	Kauikeolani	Child.	N.P.A.	75	64	48	2127	8.2	...	...
Honolulu	Leahi Home	TB	N.P.A.	445	91	405	317	466	...	4
Honolulu	Queen's	Gen.	N.P.A.	300	72	216	8878	8.9	25	770
Honolulu	St. Francis	Gen.	Church	60	100	60	2376	9.2	10	207
Honolulu	Shriners	Orth.	Frat.	28	100	28	65	157	...	...
Honolulu	Tripler	Gen.	Army	350	65	228	3620	23.0	10	103
Kahuku	Kahuku Plant. Co.	Gen.	N.P.A.	29	86	25	633	14.4	6	103
Kaneohe	Territorial	Mental	Terr.	867	101	876	303	...	...	...
Pearl City	Waimano Home	Men. & Def.	Terr.	368	89	329	50	...	...	...
Pearl Harbor	U. S. Naval	Gen.	Navy	265	56	149	1856	29.3	...	...
Schof. Bks.	Station	Gen.	Army	441	57	250	7929	11.5	12	82
Waialua	Waialua Agric. Co.	Gen.	N.P.A.	40	60	24	895	9.8	6	151
Waipahu	Oahu Sugar Co.	Gen.	N.P.A.	62	81	50	...	...	8	...
Waipahu	Tamura	Gen.	Indiv.	7	57	4	171	8.5	3	40
<i>Hawaii County</i>										
Haina	Honokaa Sugar Co.	Gen.	N.P.A.	28	57	16	393	14.9	4	34
Hakalau	Hakalau Plant.	Gen.	N.P.A.	22	50	11	388	10.3	2	21
Hilo	Hilo Memorial	Gen.	County	140	74	104	2406	15.8	18	228
Hilo	Puumaile Home	TB	County	142	99	140	113	452	...	...
Kealahkekua	Kona	Gen.	County	28	57	16	287	20.3	3	39
Kohala	Kohala County	Gen.	County	48	42	20	793	9.2	6	101
Olaa	Olaa	Gen.	N.P.A.	40	58	23	791	10.6	...	...
Ookala	Kaiwiki Sugar Co.	Gen.	N.P.A.	10	40	4	174	8.4	4	34
Paauhau	Paauhau Plant. Co.	Gen.	N.P.A.	18	39	7	...	...	2	...
Paauilo	Paauilo	Gen.	N.P.A.	14	36	5	1460	1.3	3	16
Pahala	Hawaiian Agric. Co.	Gen.	N.P.A.	39	62	24	764	11.5	6	100
Papaaloa	Laupahoehoe	Gen.	N.P.A.	23	22	5	145	12.6	4	16
Pepeekeo	Pepeekeo Central	Gen.	N.P.A.	41	61	25	968	9.4	4	105
<i>Maui County</i>										
Hana	Hana	Gen.	County	29	28	8	495	5.9	4	37
Hoolehua	Shingle Memorial	Gen.	Church	20	60	12	453	9.7	6	58
Kula	Kula Sanatorium	Gen. & TB	County	210	74	156	637	89.4	3	55
Lahaina	Pioneer Mill Co.	Gen.	N.P.A.	63	63	40	1724	8.5	9	160
Lanai City	Lanai	Gen.	N.P.A.	27	74	20	856	8.5	4	83
Paia	Paia Hospital	Gen.	N.P.A.	102	47	48	2047	8.6	10	188
Puunene	Puunene	Gen.	N.P.A.	100	70	70	3404	7.5	24	298
Wailuku	Malulani	Gen.	County	83	86	71	1536	16.9	10	212
Wailuku	Yamashiro	Gen.	Indiv.	20	25	5	300	6.1	1	5
<i>Kauai County</i>										
Eleele	McBryde Sugar Co.	Gen.	N.P.A.	30	73	22	596	13.5	4	56
Kealia	Mahelona Memorial	TB	County	110	94	103	66	570	...	...
Kilauea	Kilauea	Gen.	N.P.A.	25	...	...	...	...	4	...
Koloa	Koloa Sugar Co.	Gen.	N.P.A.	22	41	9	338	9.7	3	35
Makaweli	Hawaiian Sugar Co.	Gen.	N.P.A.	40	93	37	913	14.8	3	42
Waimea	Waimea	Gen.	N.P.A.	36	114	41	1405	10.7	6	111
<i>Kalawao County</i>										
Kalaupapa	Leprosy Hospital	Lepro.	Terr.	52	79	41	216	69.3	...	...

<sup>1</sup>Not indicated whether "normal" or "actual" beds are given.

<sup>2</sup>Calculated.

Source: "Hospital Service in the United States," *Journal of the American Medical Association*, March 11, 1939, Vol. 112, No. 10, pp. 993-994. Lists only hospitals registered by the A.M.A.



Table 44  
HOSPITAL FACILITIES  
TERRITORY OF HAWAII, 1939

CITY	HOSPITAL	TYPE	OWNER-SHIP	BEDS <sup>1</sup>	% OCC. <sup>2</sup>	AV. CENSUS <sup>3</sup>	ADMIS-SIONS <sup>3</sup>	AV. DAYS STAY <sup>2</sup>	BASSI-NETS	NO. OF BIRTHS
<i>Honolulu County</i>										
Aiea	Honolulu Plant.	Gen.	N.P.A.	46	...	...	....	....	4	...
Ewa	Ewa Plant. Co.	Gen.	N.P.A.	45	49	22	860	9.3	6	74
Honolulu	Japanese	Gen.	N.P.A.	120	...	...	....	....	5	...
Honolulu	Kapiolani	Mat. & Gyn.	N.P.A.	51	65	33	1884	6.4	30	1057
Honolulu	Kauikeolani	Child.	N.P.A.	75	80	60	2521	8.7	...	...
Honolulu	Leahi Home	TB	N.P.A.	445	96	427	321	486	...	4
Honolulu	Queen's	Gen.	N.P.A.	300	78	235	10301	8.3	30	1196
Honolulu	St. Francis	Gen.	Church	65	77	50	2595	7.0	10	361
Honolulu	Shriners	Orth.	Frat.	28	100	28	90	114	...	...
Honolulu	Tripler	Gen.	Army	373	58	215	3280	23.9	10	108
Kahuku	Kahuku Plant. Co.	Gen.	N.P.A.	29	66	19	838	8.3	6	113
Kaneohe	Territorial	Mental	Terr.	900	96	866	287	....	...	...
Pearl City	Waimano Home	Men. Def.	Terr.	368	100	368	28	....	...	...
Pearl Harbor	U. S. Naval	Gen.	Navy	263	54	141	3573	14.4	...	...
Schof. Bks.	Station	Gen.	Army	429	69	294	4798	22.4	12	88
Waialua	Waialua Agric. Co.	Gen.	N.P.A.	40	55	22	788	10.2	6	168
Waipahu	Oahu Sugar Co.	Gen.	N.P.A.	65	77	50	1459	12.5	10	55
Waipahu	Tamura	Gen.	Indiv.	7	57	4	173	8.4	3	45
<i>Hawaii County</i>										
Haina	Honokaa Sugar Co.	Gen.	N.P.A.	28	39	11	293	13.7	4	20
Hakalau	Hakalau Plant.	Gen.	N.P.A.	28	43	12	467	9.4	3	31
Hilo	Hilo Memorial	Gen.	County	143	64	91	2196	15.1	18	237
Hilo	Puumaile	TB	County	165	85	141	106	486	...	...
Kealahou	Kona	Gen.	County	28	75	21	314	24.4	3	50
Kohala	Kohala County	Gen.	County	50	38	19	819	8.5	6	105
Olaa	Olaa	Gen.	N.P.A.	44	77	34	934	13.3	2	56
Ookala	Kaiwiki Sugar Co.	Gen.	N.P.A.	10	40	4	141	10.4	4	28
Paaubau	Paaubau Sugar Co.	Gen.	N.P.A.	18	28	5	215	8.5	2	19
Paaui	Paaui	Gen.	N.P.A.	12	42	5	214	8.5	2	22
Pahala	Hawaiian Agric. Co.	Gen.	N.P.A.	39	46	18	613	10.7	6	109
Pepeekeo	Pepeekeo Central	Gen.	N.P.A.	41	59	24	757	11.6	4	132
<i>Mauai County</i>										
Hana	Hana	Gen.	County	29	...	...	....	....	4	...
Hoolehua	Shingle Memorial	Gen.	Church	19	63	12	547	8.0	5	66
Kula	Kula Sanatorium	TB	Terr.-Co.	195	88	172	101	622	...	...
Lahaina	Pioneer Mill Co.	Gen.	N.P.A.	63	68	43	1812	8.7	9	171
Lanai City	Lanai	Gen.	N.P.A.	27	...	...	....	....	4	...
Paia	Paia Hosp.	Gen.	N.P.A.	102	47	48	2448	7.2	10	200
Puunene	Puunene	Gen.	N.P.A.	100	60	60	2989	7.3	24	281
Wailuku	Malulani	Gen.	County	86	91	78	2010	14.2	10	254
Wailuku	Yamashiro	Gen.	Indiv.	20	25	5	....	....	...	...
<i>Kauai County</i>										
Eleale	McBryde Sugar Co.	Gen.	N.P.A.	30	53	16	640	9.1	5	47
Kealia	Mahelona Memorial	TB	County	120	88	106	65	595	...	...
Kilauea	Kilauea	Gen.	N.P.A.	25	...	...	....	....	4	...
Koloa	Koloa Sugar Co.	Gen.	N.P.A.	22	45	10	345	10.6	3	33
Lihue	Wilcox Memorial	Gen.	N.P.A.	94	34	32	1397	8.4	11	186
Makaweli	Hawaiian Sugar Co.	Gen.	N.P.A.	43	37	16	920	6.3	4	88
Waimea	Waimea	Gen.	N.P.A.	36	97	35	1132	11.3	6	110
<i>Kalawao County</i>										
Kalaupapa	Kalaupapa Settlement	Lepro.	Terr.	400	92	370	35	....	2	2

<sup>1</sup>Not indicated whether "normal" or "actual."

<sup>2</sup>Calculated.

<sup>3</sup>Excluding newborn infants.

Source: "Hospital Service in the United States," *Journal of the American Medical Association*, March 30, 1940, Vol. 114, No. 13, pp. 1157 ff. Lists only hospitals registered by the A.M.A.

Table 45  
HOSPITAL FACILITIES  
TERRITORY OF HAWAII, 1940

CITY	HOSPITAL	TYPE	OWNER-SHIP	BEDS <sup>1</sup>	% OCC. <sup>2</sup>	AV. CENSUS <sup>3</sup>	ADMIS-SIONS <sup>3</sup>	AV. DAYS STAY <sup>2</sup>	BASSI-NETS	NO. OF BIRTHS
<i>Honolulu County</i>										
Aiea	Honolulu Plant. Co.	Gen.	N.P.A.	44	...	...	...	...	4	50
Ewa	Ewa Plant. Co.	Gen.	N.P.A.	46	52	24	1011	8.7	6	127
Honolulu	Japanese	Gen.	N.P.A.	150	61	91	3302	10.1	8	165
Honolulu	Kalihi	Lepro.	Terr.	44	...	...	...	...	...	...
Honolulu	Kapiolani	Mat. & Gyn.	N.P.A.	49	65	32	1737	6.7	30	1158
Honolulu	Kauikeolani	Child.	N.P.A.	75	69	52	2701	7.0	...	...
Honolulu	Leahi Home	TB	N.P.A.	500	86	429	276	569	...	5
Honolulu	Queen's	Gen.	N.P.A.	284	79	225	10301	8.0	30	1196
Honolulu	St. Francis	Gen.	Church	65	78	51	2571	7.3	10	375
Honolulu	Shriners	Orth.	N.P.A.	28	100	28	86	119	...	...
Honolulu	Tripler	Gen.	Army	407	69	279	4242	24.1	10	105
Kahuku	Kahuku	Gen.	N.P.A.	30	57	17	829	7.5	6	110
Kaneohe	Territorial	Mental	Terr.	926	97	901	289	...	...	...
Pearl City	Waimano Home	Men. Def.	Terr.	368	99	364	31	...	...	...
Pearl Harbor	U. S. Naval	Gen.	Navy	178	79	140	3589	14.3	...	...
Schof. Bks.	Station	Gen.	Army	530	58	305	6271	17.8	13	100
Wahiawa	Mack	Gen.	Indiv.	9	22	2	77	9.5	2	19
Waialua	Waialua Agric. Co.	Gen.	N.P.A.	40	50	20	762	9.6	6	143
Waipahu	Oahu Sugar Co.	Gen.	N.P.A.	65	77	50	1445	12.7	10	98
Waipahu	Tamura	Gen.	Indiv.	7	57	4	174	8.4	3	48
<i>Hawaii County</i>										
Haina	Honokaa Sugar Co.	Gen.	N.P.A.	28	...	...	...	...	4	28
Hakalau	Hakalau Plant.	Gen.	N.P.A.	28	36	10	500	7.3	3	31
Hilo	Hilo Memorial	Gen.	County	140	51	72	2416	10.9	18	296
Hilo	Dr. Z. Matayoshi	Gen.	Indiv.	27	37	10	495	7.4	...	3
Hilo	Puumaile	TB	County	165	92	151	114	485	...	...
Honokaa	Okada	Gen.	Indiv.	6	67	4	115	12.7	3	11
Kealahou	Kona	Gen.	County	50	60	30	440	25.0	6	59
Kohala	Kohala County	Gen.	County	50	40	20	701	10.4	6	122
Olaa	Olaa	Gen.	N.P.A.	37	68	25	988	9.3	6	110
Ookala	Ookala	Gen.	N.P.A.	10	...	...	...	...	4	25
Paauihau	Paauihau Sugar Co.	Gen.	N.P.A.	18	...	...	...	...	2	26
Paauihau	Hamakua Mill Co.	Gen.	N.P.A.	12	...	...	...	...	2	24
Pahala	Hawaiian Agric. Co.	Gen.	N.P.A.	39	49	19	668	10.4	6	110
Papaaloa	Laupahoehoe Sugar Co.	Gen.	N.P.A.	18	39	7	263	9.7	4	22
Papaikou	Papaikou	Gen.	Indiv.	18	67	12	432	10.2	1	22
Pepeekeo	Pepeekeo	Gen.	N.P.A.	41	29	12	878	5.0	4	121
<i>Maui County</i>										
Hana	Hana County	Gen.	County	36	56	20	...	...	4	110
Hoolehua	Shingle Memorial	Gen.	Church	19	53	10	503	7.3	5	60
Kula	Kula General	Gen.	County	21	57	12	362	12.1	3	32
Kula	Kula Sanatorium	TB	County	185	97	180	89	740	...	...
Lahaina	Pioneer Mill Co.	Gen.	N.P.A.	65	63	41	1317	11.4	9	178
Lanai City	Lanai City	Gen.	N.P.A.	22	64	14	789	6.5	5	82
Maunaloa	Maunaloa	Gen.	N.P.A.	19	26	5	359	5.1	5	28
Paia	Paia Hospital	Gen.	N.P.A.	102	...	...	...	...	10	194
Puunene	Puunene	Gen.	N.P.A.	100	73	73	3028	8.8	24	284
Wailuku	Malulani	Gen.	County	97	64	62	2172	10.4	10	286
Wailuku	Yamashiro	Gen.	Indiv.	20	...	...	...	...	1	...
<i>Kauai County</i>										
Eleele	McBryde Sugar Co.	Gen.	N.P.A.	29	...	...	...	...	5	47
Hanapepe	Betsui	Gen.	Indiv.	10	40	4	312	4.7	2	36
Kealia	Mahelona Memorial	TB	County	115	94	108	55	719	...	...
Kilauea	Kilauea	Gen.	N.P.A.	17	53	9	486	6.8	5	39
Koloa	Koloa Sugar Co.	Gen.	N.P.A.	22	36	8	347	8.4	3	45
Lihue	Wilcox Memorial	Gen.	N.P.A.	94	37	35	1763	7.3	11	195
Makaweli	Hawaiian Sugar Co.	Gen.	N.P.A.	43	26	11	1056	3.8	3	115
Waimea	Waimea	Gen.	N.P.A.	36	89	32	984	11.9	6	109
<i>Kalawao County</i>										
Kalaupapa	Kalaupapa Settlement	Lepro.	Terr.	400	88	352	37	...	2	8

<sup>1</sup>Not specified whether "actual" or "rated."

<sup>2</sup>Calculated.

<sup>3</sup>Excluding newborn infants.

Source: "Hospital Service in the United States," *Journal of the American Medical Association*, March 15, 1941, Vol. 116, No. 11, pp. 1142-1143. Lists only hospitals registered by the A.M.A.



Table 46  
HOSPITAL FACILITIES  
TERRITORY OF HAWAII, 1941<sup>1</sup>

CITY	HOSPITAL	TYPE	OWNER-SHIP	BEDS <sup>2</sup>	% OCC. <sup>3</sup>	AV. CENSUS <sup>4</sup>	ADMIS-SIONS <sup>4</sup>	AV. DAYS STAY <sup>5</sup>	BASSI-NETS	NO. OF BIRTHS
<i>Honolulu County</i>										
Aiea	Aiea	Gen.	N.P.A.	46	33	15	704	7.8	4	46
Ewa	Ewa Plant. Co.	Gen.	N.P.A.	48	56	27	1111	8.9	6	132
Honolulu	Kalihi	Lepro.	Terr.	151	53	80	31	942	...	...
Honolulu	Kapiolani	Mat. & Gyn.	N.P.A.	50	92	46	2724	6.2	30	1770
Honolulu	Kauikeolani	Child.	N.P.A.	92	67	62	3225	7.0	...	...
Honolulu	Kuakini <sup>6</sup>	Gen.	N.P.A.	156	80	125	4800	9.5	20	398
Honolulu	Leahi Home	TB	N.P.A.	500	86	431	395	398	...	5
Honolulu	Queen's	Gen.	N.P.A.	284	94	268	10380	9.4	36	1428
Honolulu	St. Francis	Gen.	Church	65	89	58	2986	7.1	10	394
Honolulu	Shriners	Orth.	N.P.A.	28	96	27	89	111	...	...
Honolulu	Tripler <sup>6</sup>	Gen.	Army	...	...	...	...	...	...	...
Kahuku	Kahuku	Gen.	N.P.A.	30	63	19	702	9.9	6	125
Kaneohe	Territorial	Mental	Terr.	926	103	953	354	...	...	...
Pearl City	Waimano Home	Men. Def.	Terr.	368	99	363	20	...	...	...
Pearl Harbor	U. S. Naval <sup>6</sup>	Gen.	Navy	...	...	...	...	...	...	...
Schof. Bks.	Station <sup>6</sup>	Gen.	Army	...	...	...	...	...	...	...
Wahiawa	Mack	Gen.	Indiv.	9	22	2	114	6.4	3	33
Waialua	Waialua Agric. Co.	Gen.	N.P.A.	40	42	17	601	10.3	6	104
Waipahu	Oahu Sugar Co.	Gen.	N.P.A.	65	...	...	...	...	10	...
Waipahu	Tamura	Gen.	Indiv.	7	57	4	217	6.7	3	60
<i>Hawaii County</i>										
Haina	Honokaa Sugar Co.	Gen.	N.P.A.	28	...	...	...	...	4	...
Hakalau	Hakalau Plant.	Gen.	N.P.A.	25	...	...	455	...	3	30
Hilo	Hilo Memorial	Gen.	County	140	63	88	2636	12.2	18	340
Hilo	Dr. Z. Matayoshi	Gen.	Indiv.	22	...	...	...	...	...	...
Hilo	Puumaile	TB	County	168	95	160	111	526	...	...
Honokaa	Okada	Gen.	Indiv.	6	33	2	104	7.0	3	23
Kealahou	Kona	Gen.	County	50	62	31	464	24.4	6	99
Kohala	Kohala County	Gen.	County	46	41	19	626	11.1	6	122
Olaa	Olaa Plant.	Gen.	N.P.A.	37	57	21	945	8.1	6	123
Ookala	Ookala	Gen.	N.P.A.	10	...	...	...	...	4	...
Paaupahau	Paaupahau Sugar Co. <sup>7</sup>	Gen.	N.P.A.	18	...	...	...	...	2	...
Paaui	Hamakua Mill Co.	Gen.	N.P.A.	12	...	...	...	...	2	...
Pahala	Hawaiian Agric. Co.	Gen.	N.P.A.	39	41	16	742	7.9	6	113
Papaaloa	Laupahoehoe Sugar Co.	Gen.	N.P.A.	19	32	6	259	8.5	4	28
Papaikou	Papaikou	Gen.	Indiv.	18	...	...	...	...	1	...
Pepeekeo	Pepeekeo	Gen.	N.P.A.	41	49	20	941	7.8	4	110
<i>Maui County</i>										
Hana	Hana County	Gen.	County	36	...	...	...	...	4	...
Hoolehua	Shingle Memorial	Gen.	Church	19	...	...	...	...	5	...
Kula	Kula General	Gen.	County	20	60	12	432	10.1	3	38
Kula	Kula Sanatorium	TB	County	185	84	156	87	654	...	...
Lahaina	Pioneer Mill Co.	Gen.	N.P.A.	65	62	40	1570	9.3	9	150
Lanai City	Lanai City	Gen.	N.P.A.	25	52	13	602	7.9	5	84
Maunaloa	Maunaloa	Gen.	N.P.A.	19	21	4	284	5.1	5	22
Paia	Paia Hospital	Gen.	N.P.A.	102	...	...	...	...	10	...
Puunene	Puunene	Gen.	N.P.A.	100	79	79	3778	7.6	24	283
Wailuku	Malulani	Gen.	County	93	86	80	1471	19.9	10	232
<i>Kauai County</i>										
Eleele	McBryde Sugar Co.	Gen.	N.P.A.	35	77	27	937	10.5	6	96
Hanapepe	Betsui	Gen.	Indiv.	10	50	5	280	6.5	2	37
Kapaa	Mahelona Memorial	TB	County	115	83	96	66	531	...	...
Kilauea	Kilauea	Gen.	N.P.A.	25	36	9	335	9.8	5	46
Koloa	Koloa Sugar Co.	Gen.	N.P.A.	22	50	11	490	8.2	3	56
Lihue	Wilcox Memorial	Gen.	N.P.A.	94	40	38	1833	7.6	11	266
Waimea	Waimea	Gen.	N.P.A.	36	86	31	886	12.8	6	133
<i>Kalawao County</i>										
Kalaupapa	Kalaupapa Settlement	Lepro.	Terr.	515	73	378	57	...	2	5

<sup>1</sup>Most data for the calendar year 1941, although some hospitals gave data for the year ended September 30, 1941.

<sup>2</sup>Not specified whether "actual" or "rated."

<sup>3</sup>Calculated.

<sup>4</sup>Excluding newborn infants.

<sup>5</sup>Data from Rear Admiral Lucius W. Johnson, MC, USN, "Survey of Honolulu Hospitals" (reprinted by Public Health Committee from *Hawaii Medical Journal*, Nov.-Dec. 1944).

<sup>6</sup>The original source repeated 1940 data for Tripler, Station and U. S. Naval Hospitals.

<sup>7</sup>Closed after December 7, 1941.

Source: "Hospital Service in the United States." *Journal of the American Medical Association*, March 28, 1942, Vol. 118, No. 13, pp. 1132-1133. All hospitals registered with the A.M.A. except Kuakini.

Table 47  
HOSPITAL FACILITIES  
TERRITORY OF HAWAII, 1942<sup>1</sup>

CITY	HOSPITAL	TYPE	OWNER-SHIP	BEDS <sup>2</sup>	% OCC. <sup>3</sup>	AV. CENSUS <sup>4</sup>	ADMIS-SIONS <sup>4</sup>	AV. DAYS STAY <sup>5</sup>	BASSI-NETS	NO. OF BIRTHS
<i>Honolulu County</i>										
Aiea	Aiea	Gen.	N.P.A.	37	62	23	1286	6.5	4	52
Aiea	U. S. Naval	Gen.	Navy <sup>6</sup>	...	...	...	...	...	...	...
Ewa	Ewa Plant. Co.	Gen.	N.P.A.	48	44	21	791	9.7	6	79
Honolulu	Kalihi	Lepro.	Terr.	140	...	...	...	...	...	...
Honolulu	Kapiolani	Mat. & Gyn.	N.P.A.	50	116	58	2862	7.4	50	2005
Honolulu	Kauikeolani	Child.	N.P.A.	75	72	54	3216	6.1	...	...
Honolulu	Kuakini <sup>6</sup>	Gen.	N.P.A.	181	64	116	5064	8.3	20/8	641
Honolulu	Leahi	TB	N.P.A.	490	86	419	428	468	...	...
Honolulu	Queen's	Gen.	N.P.A.	310	97	300	11175	9.8	40	1451
Honolulu	Sacred Hearts Emerg. <sup>7</sup>	Emerg.	OCD	500	5	24	...	...	...	...
Honolulu	St. Francis	Gen.	Church	95	97	92	3480	9.6	16	503
Honolulu	Shriners	Orth.	N.P.A.	28	82	23	72	117	...	...
Honolulu	Tripler <sup>8</sup>	Gen.	Army	...	...	...	...	...	...	...
Kahuku	Kahuku	Gen.	N.P.A.	30	47	14	638	8.0	6	105
Kaneohe	Territorial	Mental	Terr.	1130	87	983	332	...	...	...
Pearl City	Waimano Home	Men. Def.	Terr.	391	98	384	42	...	...	...
Pearl Harbor	U. S. Naval <sup>6</sup>	Gen.	Navy	...	...	...	...	...	...	...
Schof. Bks.	Station <sup>8</sup>	Gen.	Army	...	...	...	...	...	...	...
Wahiawa	Mack	Gen.	Indiv.	9	44	4	221	6.6	3	61
Wahiawa	Wahiawa <sup>9</sup>	...	...	...	...	...	...	...	...	...
Waialua	Waialua Agric. Co.	Gen.	N.P.A.	40	30	12	564	7.8	6	118
Waipahu	Oahu Sugar Co.	Gen.	N.P.A.	53	57	30	1236	8.9	10	288
Waipahu	Tamura	Gen.	Indiv.	7	57	4	190	7.7	3	96
<i>Hawaii County</i>										
Haina	Honokaa Sugar Co.	Gen.	N.P.A.	40	25	10	287	12.7	4	53
Hakalau	Hakalau Plant.	Gen.	N.P.A.	28	104	29	455	23.3	3	30
Hilo	Hilo Memorial	Gen.	County	140	55	77	2549	11.0	18	356
Hilo	Dr. Z. Matayoshi	Gen.	Indiv.	42	12	5	218	8.4	5	18
Hilo	Puumaile	TB	County	176	85	150	117	468	...	...
Honokaa	Okada	Gen.	Indiv.	6	33	2	86	8.5	3	22
Kealahou	Kona	Gen.	County	50	58	29	439	24.1	7	115
Kohala	Kohala County	Gen.	County	50	28	14	555	9.2	6	104
Olaa	Olaa	Gen.	N.P.A.	37	59	22	1018	7.9	6	117
Ookala	Ookala	Gen.	N.P.A.	10	...	...	...	...	4	...
Paaui	Hamakua Mill Co.	Gen.	N.P.A.	11	36	4	131	11.1	2	23
Pahala	Hawaiian Agric. Co.	Gen.	N.P.A.	30	47	14	656	7.8	6	99
Papaaloa	Laupahoehoe Sugar Co.	Gen.	N.P.A.	17	47	8	264	11.1	4	25
Pepeekeo	Pepeekeo	Gen.	N.P.A.	41	51	21	1180	6.5	4	86
<i>Maui County</i>										
Hana	Hana County	Gen.	County	36	...	...	...	...	4	...
Hoolehua	Shingle Memorial	Gen.	Church	19	47	9	399	8.2	8	52
Kula	Kula General	Gen.	County	23	52	12	291	15.1	3	38
Kula	Kula Sanatorium	TB	County	203	73	149	87	625	...	...
Lahaina	Pioneer Mill Co.	Gen.	N.P.A.	65	52	34	1134	10.9	9	118
Lanai City	Lanai City	Gen.	N.P.A.	22	50	11	574	7.0	5	85
Maunaloa	Maunaloa	Gen.	N.P.A.	19	11	2	233	3.1	5	23
Paia	Paia Hospital	Gen.	N.P.A.	102	...	...	...	...	10	...
Puunene	Puunene	Gen.	N.P.A.	180	18	33	2112	5.7	29	202
Wailuku	Malulani	Gen.	County	121	41	50	1385	13.2	8	...
<i>Kauai County</i>										
Eleele	McBryde Sugar Co.	Gen.	N.P.A.	36	83	30	912	12.0	6	132
Hanapepe	Betsui	Gen.	Indiv.	12	50	6	356	6.2	2	40
Kapaa	Mahelona Memorial	TB	County	120	81	97	60	590	...	...
Kilauea	Kilauea	Gen.	N.P.A.	20	50	10	308	11.9	5	28
Koloa	Koloa Sugar Co.	Gen.	N.P.A.	20	45	9	278	11.8	3	48
Lihue	Wilcox Memorial	Gen.	N.P.A.	94	32	30	1331	8.2	11	289
Waimea	Waimea	Gen.	N.P.A.	36	83	30	866	12.6	6	83
<i>Kalawao County</i>										
Kalaupapa	Kalaupapa Settlement	Lepro.	Terr.	515	70	359	37	...	2	2

<sup>1</sup>Mostly for the year ended September 30, 1942.

<sup>2</sup>Not specified whether "normal" or "complement."

<sup>3</sup>Calculated.

<sup>4</sup>Excluding newborn infants.

<sup>5</sup>Commissioned Nov. 11, 1942 (see *Oahu Health Council Bulletin*, February 1948, p. 3).

<sup>6</sup>Data from Rear Admiral L. W. Johnson, MC, USN, "Survey of Honolulu Hospitals" (reprinted by Public Health Committee from *Hawaii Medical Journal*, Nov.-Dec. 1944). Figure is for actual beds.

<sup>7</sup>Opened in April 1942 for civilian war casualties, and closed in August 1944 (information from Mrs. Elaine Johnson and "Survey of Honolulu Hospitals" - see footnote 6).

<sup>8</sup>The source merely repeated 1940 data for Tripler, U. S. Naval and Station Hospitals, in 1941 and 1942.

<sup>9</sup>Operated as an OCD hospital from January 1942 to December 1944.

Source: "Hospital Service in the United States," *Journal of the American Medical Association*, March 27, 1943, Vol. 121, No. 13, p. 1085. All hospitals registered with the A.M.A. except Aiea U. S. Naval, Kuakini, Sacred Hearts, and Wahiawa.



Table 48  
HOSPITAL FACILITIES  
TERRITORY OF HAWAII, 1943<sup>1</sup>

CITY	HOSPITAL	TYPE	OWNER-SHIP	BEDS <sup>2</sup>	% OCC. <sup>3</sup>	AV. CENSUS <sup>4</sup>	ADMIS-SIONS <sup>4</sup>	AV. DAYS STAY <sup>5</sup>	BASSI-NETS	NO. OF BIRTHS
<i>Honolulu County</i>										
Aiea	Aiea	Gen.	N.P.A.	37	62	23	1186	7.1	4	51
Aiea	U. S. Naval <sup>6</sup>	.....	.....	...	...	...	...	...	...	...
Ewa	Ewa Plant. Co.	Gen.	N.P.A.	48	48	23	994	8.4	6	102
Honolulu	Kalihi	Lepro.	Terr.	140	...	...	...	...	...	...
Honolulu	Kapiolani	Mat. & Gyn.	N.P.A.	65	95	62	3078	7.4	65	2395
Honolulu	Kauaikeolani	Child.	N.P.A.	75	72	54	3453	5.7	...	...
Honolulu	Kuakini <sup>6</sup>	Gen.	N.P.A.	181	70	126	6068	7.8	20/8	784
Honolulu	Leahi	TB	N.P.A.	493	82	404	419	352	...	7
Honolulu	Queen's	Gen.	N.P.A.	312	99	308	13409	8.4	46	1948
Honolulu	Sacred Hearts Emerg. <sup>7</sup>	Emerg.	OCD	500	9	47	...	...	...	...
Honolulu	St. Francis	Gen.	Church	93	110	102	4193	8.9	16	760
Honolulu	Shriners	Orth.	N.P.A.	28	82	23	78	108	...	...
Honolulu	Tripler <sup>8</sup>	Gen.	Army	...	...	...	...	...	...	...
Kahuku	Kahuku	Gen.	N.P.A.	30	67	20	1045	7.0	6	125
Kaneohe	Territorial	Mental	Terr.	926	110	1014	275	...	...	...
Pearl City	Waimano Home	Men. Def.	Terr.	408	97	397	16	...	...	...
Pearl Harbor	U. S. Naval <sup>6</sup>	.....	.....	...	...	...	...	...	...	...
Schof. Bks.	Station <sup>8</sup>	Gen.	Army	...	...	...	...	...	...	...
Wahiawa	Wahiawa <sup>9</sup>	.....	.....	...	...	...	...	...	...	...
Waialua	Waialua Agric. Co.	Gen.	N.P.A.	38	34	13	513	9.2	6	113
Waipahu	Oahu Sugar Co.	Gen.	N.P.A.	80	40	32	1194	9.8	8	130
Waipahu	Tamura	Gen.	Indiv.	7	57	4	205	7.1	3	104
<i>Hawaii County</i>										
Haina	Honokaa Sugar Co.	Gen.	N.P.A.	40	30	12	389	11.3	4	49
Hakalau	Hakalau Plantation	Gen.	N.P.A.	22	41	9	327	10.0	3	25
Hilo	Hilo Memorial	Gen.	County	142	56	80	2914	10.0	18	414
Hilo	Dr. Z. Matayoshi	Gen.	Indiv.	42	29	12	370	11.8	5	31
Hilo	Puumaile	TB	County	179	93	167	106	575	...	2
Honokaa	Okada	Gen.	Indiv.	6	67	4	138	10.6	3	29
Kealahou	Kona	Gen.	County	50	40	20	410	17.8	7	95
Kohala	Kohala County	Gen.	County	50	32	16	749	7.8	6	111
Olaa	Olaa	Gen.	N.P.A.	49	43	21	938	8.2	11	126
Ookala	Ookala	Gen.	N.P.A.	9	44	4	100	14.6	4	20
Paaui	Hamakua Mill Co.	Gen.	N.P.A.	11	...	...	...	...	2	...
Pahala	Hawaiian Agric. Co.	Gen.	N.P.A.	38	39	15	655	8.4	7	62
Papaaloa	Laupahoehoe Sugar Co.	Gen.	N.P.A.	18	39	7	289	8.8	4	38
Pepeekeo	Pepeekeo	Gen.	N.P.A.	43	56	24	1080	8.1	4	97
<i>Maui County</i>										
Hana	Hana County	Gen.	County	36	...	...	...	...	4	...
Hoolehua	Shingle Memorial	Gen.	Church	63	24	15	468	11.7	8	62
Kula	Kula General	Gen.	County	20	45	9	395	8.3	6	41
Kula	Kula Sanatorium	TB	County	206	82	169	116	532	...	...
Lahaina	Pioneer Mill Co.	Gen.	N.P.A.	65	58	38	1185	11.7	9	139
Lanai City	Lanai City	Gen.	N.P.A.	31	35	11	713	5.6	5	94
Maunaloa	Maunaloa	Gen.	N.P.A.	19	11	2	266	2.7	5	17
Paia	Paia Hospital	Gen.	N.P.A.	102	...	...	...	...	10	...
Puunene	Puunene <sup>10</sup>	Gen.	N.P.A.	110	31	34	2133	5.8	10	195
Wailuku	Malulani	Gen.	County	110	55	61	2877	7.7	16	313
<i>Kauai County</i>										
Eleele	McBryde Sugar Co.	Gen.	N.P.A.	35	83	29	881	12.0	9	141
Hanapepe	Betsui	Gen.	Indiv.	16	56	9	...	...	3	58
Kapaa	Mahelona Memorial	TB	County	120	77	92	70	480	...	...
Kilauea	Kilauea	Gen.	N.P.A.	25	32	8	231	12.6	4	24
Koloa	Koloa Sugar Co.	Gen.	N.P.A.	22	23	5	229	8.0	3	27
Lihue	Wilcox Memorial	Gen.	N.P.A.	94	40	38	1467	9.5	11	249
Waimea	Waimea	Gen.	N.P.A.	36	67	24	1103	7.9	6	136
<i>Kalawao County</i>										
Kalaupapa	Kalaupapa Settlement	Lepro.	Terr.	515	75	386	38	...	2	2

<sup>1</sup>Mostly for the year ended September 30, 1943.

<sup>2</sup>Not specified whether "normal" or "complement" beds.

<sup>3</sup>Calculated.

<sup>4</sup>Excluding newborn infants.

<sup>5</sup>Not listed by this source.

<sup>6</sup>Data from Rear Admiral L. W. Johnson, MC, USN, "Survey of Honolulu Hospitals," (reprinted by the Public Health Committee of the Chamber of Commerce of Honolulu from *Hawaii Medical Journal*, November-December 1944). Bed figure is for actual beds.

<sup>7</sup>Data from Mrs. Elaine Johnson and "Survey of Honolulu Hospitals" (see footnote 6 above).

<sup>8</sup>The source merely repeated 1940 data for Tripler and Station Hospitals in 1941, 1942 and 1943.

<sup>9</sup>Operated as an OCD hospital in 1942, 1943 and 1944.

<sup>10</sup>Printing smudged in source. It is possible that average census was 84 (not 34) persons, thus indicating an average occupancy of 76 per cent and average length of stay of 14.4 days.

Source: "Hospital Service in the United States", *Journal of the American Medical Association*, March 25, 1944, Vol. 124, No. 13, p. 915. All hospitals registered with the A.M.A. except Kuakini, Aiea Naval, Pearl Harbor Naval, Sacred Hearts, and Wahiawa.

Table 49  
HOSPITAL FACILITIES  
TERRITORY OF HAWAII, 1944

CITY	HOSPITAL	TYPE	OWNER-SHIP	BEDS <sup>1</sup>	% OCC. <sup>2</sup>	AV. CENSUS <sup>3</sup>	ADMISSIONS <sup>2</sup>	AV. DAYS STAY <sup>2</sup>	BASSI-NETS	NO. OF BIRTHS
<i>Honolulu County</i>										
Aiea	Aiea	Gen.	N.P.A.	37	65	24	1116	7.8	4	110
Aiea	U. S. Naval <sup>4</sup>	.....	.....	.....	.....	.....	.....	.....	.....	.....
Ewa	Ewa Plant. Co.	Gen.	N.P.A.	48	46	22	1089	7.4	6	110
Honolulu	Kalihi	Lepro.	Terr.	140	.....	.....	.....	.....	.....	.....
Honolulu	Kapiolani	Mat. & Gyn.	N.P.A.	68	74	50	2909	6.2	71	2607
Honolulu	Kauikeolani	Child.	N.P.A.	75	81	61	3433	6.5	.....	.....
Honolulu	Kuakini <sup>5</sup>	Gen.	N.P.A.	120	85	119	5568	7.8	20	731
Honolulu	Leahi	TB	N.P.A.	487	93	451	439	375	.....	.....
Honolulu	Queen's	Gen.	N.P.A.	412	66	270	11282	8.6	46	1944
Honolulu	Sacred Hearts Emerg. <sup>6</sup>	Emerg.	OCD	500	.....	.....	.....	.....	.....	.....
Honolulu	St. Francis	Gen.	Church	100	125	125	4809	9.5	40	1300
Honolulu	Shriners	Orth.	N.P.A.	28	82	23	83	101	.....	.....
Honolulu	Tripler <sup>7</sup>	Gen.	Army	.....	.....	.....	.....	.....	.....	.....
Kahuku	Kahuku	Gen.	N.P.A.	30	60	18	817	8.0	6	138
Kaneohe	Territorial	Mental	Terr.	926	119	1098	225	.....	.....	.....
Pearl City	Waimano Home	Men. Def.	Terr.	409	101	412	33	.....	.....	.....
Pearl Harbor	U. S. Naval <sup>4</sup>	.....	.....	.....	.....	.....	.....	.....	.....	.....
Wahiawa	Wahiawa <sup>8</sup>	.....	.....	.....	.....	.....	.....	.....	.....	.....
Waialua	Waialua Agric. Co.	Gen.	N.P.A.	38	29	11	508	7.9	6	132
Waipahu	Oahu Sugar Co.	Gen.	N.P.A.	50	42	21	1087	7.1	8	96
Waipahu	Tamura	Gen.	Indiv.	7	57	4	193	7.6	3	136
<i>Hawaii County</i>										
Haina	Honokaa Plantation	Gen.	N.P.A.	36	25	9	344	9.5	4	42
Hakalau	Hakalau Plantation	Gen.	N.P.A.	20	55	11	593	6.8	3	36
Hilo	Hilo Memorial	Gen.	County	168	52	88	2804	11.5	18	441
Hilo	Dr. Z. Matayoshi	Gen.	Indiv.	42	31	13	490	9.7	5	35
Hilo	Puumaile	TB	County	224	76	171	126	495	.....	.....
Honokaa	Okada	Gen.	Indiv.	6	67	4	159	9.2	3	37
Kealahou	Kona	Gen.	County	50	46	23	455	18.5	25	112
Kohala	Kohala County	Gen.	County	50	28	14	769	6.7	6	106
Olaa	Olaa	Gen.	N.P.A.	49	35	17	834	7.5	11	115
Ookala	Ookala	Gen.	N.P.A.	9	.....	.....	.....	.....	4	.....
Paaui	Hamakua Mill Co.	Gen.	N.P.A.	11	.....	.....	.....	.....	2	.....
Pahala	Hawaiian Agric. Co.	Gen.	N.P.A.	37	54	20	677	10.8	7	104
Papaaloa	Laupahoehoe Sugar Co.	Gen.	N.P.A.	18	44	8	345	8.5	4	24
Pepeekeo	Pepeekeo	Gen.	N.P.A.	40	56 <sup>9</sup>	23 <sup>9</sup>	1054 <sup>9</sup>	7.7 <sup>9</sup>	5	85
<i>Maui County</i>										
Hana	Hana County	Gen.	County	25	40	10	341	10.7	4	43
Hoolehua	Shingle Memorial	Gen.	Church	70	17	12	448	9.8	8	87
Kula	Kula General	Gen.	County	22	36	8	429	6.8	6	44
Kula	Kula Sanatorium	TB	County	206	76	157	102	563	.....	.....
Lahaina	Pioneer Mill Co.	Gen.	N.P.A.	65	60	39	1180	12.1	9	140
Lanai City	Lanai City	Gen.	N.P.A.	22	50	11	615	6.5	6	81
Maunaloa	Maunaloa	Gen.	N.P.A.	19	.....	.....	.....	.....	5	.....
Paia	Paia Hospital	Gen.	N.P.A.	78	55	43	1969	8.0	10	194
Puunene	Puunene	Gen.	N.P.A.	110	59	65	2418	9.8	10	222
Wailuku	Malulani	Gen.	County	110	73	80	3298	8.9	16	365
<i>Kauai County</i>										
Hanapepe	Betsui	Gen.	Indiv.	23	48	11	637	6.3	5	131
Kapaa	Mahelona Memorial	TB	County	120	80	96	52	674	.....	.....
Kilauea	Kilauea Sugar Plant. <sup>10</sup>	.....	.....	.....	.....	.....	.....	.....	.....	.....
Koloa	Koloa Sugar Co.	Gen.	N.P.A.	22	27	6	192	11.4	3	28
Lihue	Wilcox Memorial	Gen.	N.P.A.	94	44	41	1664	9.0	11	314
Waimea	Waimea	Gen.	N.P.A.	36	67	24	867	10.1	6	146
<i>Kalawao County</i>										
Kalaupapa	Kalaupapa Settlement	Lepro.	Terr.	500	70	348	22	.....	.....	.....

<sup>1</sup>Not specified whether "normal" or "complement" beds.

<sup>2</sup>Calculated.

<sup>3</sup>Excluding newborn infants, except Kuakini.

<sup>4</sup>Not listed by the source.

<sup>5</sup>Data from questionnaire returned by the hospital.

<sup>6</sup>Closed August 1944. Bed capacity from Mrs. Elaine Johnson.

<sup>7</sup>The source repeated 1940 data for Tripler in 1941, 1942, 1943 and 1944.

<sup>8</sup>Operated as an OCD hospital from January 1942 to December 1944.

<sup>9</sup>Letter from W. N. Bergin, M.D., Pepeekeo Hospital, May 28, 1948.

<sup>10</sup>Hospital discontinued October 1944 and thereafter operated only as a dispensary (letter from Kilauea Sugar Plantation, April 1948).

Source: "Hospital Service in the United States," *Journal of the American Medical Association*, March 31, 1945, Vol. 127, No. 13, p. 844. All hospitals registered with the A.M.A. except Aiea Naval, Pearl Harbor Naval, Kuakini, Sacred Hearts, Wahiawa, and Kilauea.



Table 50  
HOSPITAL FACILITIES  
TERRITORY OF HAWAII, 1945<sup>1</sup>

CITY	HOSPITAL	TYPE	OWNER-SHIP	YR. ESTAB. <sup>2</sup>	BEDS <sup>3</sup>	% OCC. <sup>4</sup>	AV. CENSUS <sup>5</sup>	ADMISS-IONS <sup>6</sup>	AV. DAYS STAY <sup>4</sup>	BASSI-NETS	NO. OF BIRTHS
<i>Honolulu County</i>											
Aiea	Aiea General	Gen.	N.P.A.	1902	37	68	25	1533	6.0	4	127
Aiea	U. S. Naval <sup>6</sup>	.....	.....	.....	48	52	25	1286	7.1	6	125
Ewa	Ewa Plant. Co.	Gen.	N.P.A.	.....	140	.....	.....	.....	.....	.....	.....
Honolulu	Kalihi	Lepro.	Terr.	1865	64	72	46	2724	6.2	75	2345
Honolulu	Kapiolani	Mat. & Gyn.	N.P.A.	1890	104	56	58	3561	5.9	.....	.....
Honolulu	Kauikeolani	Child.	N.P.A.	1909	120	86	103	4837	7.7	20	731
Honolulu	Kuakini	Gen.	N.P.A.	1900	485	96	464	415	408	.....	.....
Honolulu	Leahi	TB	N.P.A.	1901	348	87	303	12961	8.5	44	2058
Honolulu	Queen's	Gen.	N.P.A.	1859	100	110	110	5459	7.4	30	1487
Honolulu	St. Francis	Gen.	Church	1927	28	75	21	81	95	.....	.....
Honolulu	Shriners	Orth.	N.P.A.	1923	2000	71	1424	20174	25.8	22	530
Honolulu	Tripler <sup>7</sup>	Gen.	Army	1907	30	57	17	942	6.6	6	124
Kahuku	Kahuku Plant.	Gen.	N.P.A.	1890	1100	100	1101	267	.....	.....	.....
Kaneohe	Territorial	Mental	Terr.	1930	582	86	500	527	846	.....	.....
Pearl City	Waimano Home	Men. Def.	Terr.	1921	110	70	76	1374	19.5	10	148
Wahiawa	Wahiawa General <sup>8</sup>	Gen.	N.P.A.	.....	38	32	12	496	8.8	6	126
Waialua	Waialua Agric. Co.	Gen.	N.P.A.	1898	50	.....	.....	.....	.....	8	.....
Waipahu	Oahu Sugar Co.	Gen.	N.P.A.	1898	7	57	4	213	6.9	3	124
Waipahu	The Tamura	Gen.	Indiv.	1933	.....	.....	.....	.....	.....	.....	.....
<i>Hawaii County</i>											
Haina	Honokaa	Gen.	N.P.A.	1900	30	40	12	360	12.2	4	52
Hakalau	Hakalau Plantation	Gen.	N.P.A.	1931	20	55	11	515	7.8	3	38
Hilo	Hilo Memorial	Gen.	County	1897	168	60	101	3816	9.7	18	456
Hilo	Dr. Z. Matayoshi	Gen.	Indiv.	1922	42	31	13	533	8.9	5	37
Hilo	Matsumura <sup>6</sup>	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Hilo	Mitamura <sup>6</sup>	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Hilo	Oto <sup>6</sup>	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Hilo	Puunene	TB	County	1912	225	85	192	160	436	.....	.....
Hilo	Yamanoha <sup>6</sup>	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Honokaa	Okada	Gen.	Indiv.	1937	6	67	4	171	8.5	3	43
Kealahou	Kona	Gen.	County	1913	50	44	22	509	15.8	7	106
Kohala	Kohala County	Gen.	County	1923	50	28	14	781	6.5	6	110
Olaa	Olaa	Gen.	N.P.A.	1901	49	41	20	890	8.2	11	118
Ookala	Ookala	Gen.	N.P.A.	1934	9	.....	.....	.....	.....	4	.....
Paaui	Hamakua Mill Co.	Gen.	N.P.A.	1925	11	45	5	237	7.7	2	31
Pahala	Hawaiian Agric. Co.	Gen.	N.P.A.	1916	37	54	20	543	13.4	7	85
Papaaloa	Laupahoehoe Sugar Co.	Gen.	N.P.A.	1916	27	30	8	400	7.3	4	51
Pepeekeo	Pepeekeo	Gen.	N.P.A.	1900	40	52 <sup>9</sup>	21 <sup>9</sup>	700 <sup>9</sup>	11.0 <sup>9</sup>	5	104 <sup>9</sup>
<i>Maui County</i>											
Hana	Hana County	Gen.	County	1920	25	40	10	529	6.9	4	40
Hoolehua	Shingle Memorial	Gen.	Church	1931	30	43	13	574	8.3	8	58
Kula	Kula General	Gen.	County	1910	22	36	8	363	8.0	6	35
Kula	Kula Sanatorium	TB	County	1910	214	81	173	102	619	.....	.....
Lahaina	Pioneer Mill Co.	Gen.	N.P.A.	1915	65	62	40	1275	11.4	9	123
Lanai City	Lanai City	Gen.	N.P.A.	1924	24	46	11	766	5.2	6	75
Maunaloa	Maunaloa	Gen.	N.P.A.	1932	19	16	3	251	4.4	5	17
Paia	Paia Hospital	Gen.	N.P.A.	1910	78	56	44	1701	9.5	10	209
Puunene	Puunene	Gen.	N.P.A.	1912	110	38	42	2001	7.7	10	167
Wailuku	Malulani	Gen.	County	.....	110	45	50	2114	8.7	16	352
<i>Kauai County</i>											
Hanapepe	Betsui Memorial	Gen.	Indiv.	.....	16	50	8	458	6.4	5	107
Kapaa	Mahelona Memorial	TB	County	1917	120	.....	.....	.....	.....	.....	.....
Koloa	Koloa Sugar Co.	Gen.	N.P.A.	1911	22	23	5	178	10.3	3	40
Lihue	Wilcox Memorial	Gen.	N.P.A.	1938	94	52	49	2044	8.8	14	368
Waimea	Waimea	Gen.	N.P.A.	1929	36	64	23	842	10.0	7	131
<i>Kalawao County</i>											
Kalaupapa	Kalaupapa Settlement	Lepro.	Terr.	1866	340	98	334	11	.....	.....	.....

<sup>1</sup>In most cases for year ended September 30, 1945.

<sup>2</sup>From *American Hospital Directory, 1946* (American Hospital Association, 1946), pp. 609-612. This source gives approximately the same data as the *Journal of the A.M.A.* annual hospital number cited as source for this table. "Year established" may not agree with figures given by other sources.

<sup>3</sup>Not indicated whether "normal" or "actual."

<sup>4</sup>Calculated.

<sup>5</sup>Excluding newborn infants.

<sup>6</sup>Not listed by the *J.A.M.A.*

<sup>7</sup>Data from *American Hospital Directory, 1946* (see footnote 2 above). The *J.A.M.A.* gave exactly the same figures for Tripler as it had every year since 1940.

<sup>8</sup>Data, including year established, from questionnaire returned by Wahiawa Hospital (May 1948).

<sup>9</sup>Letter from W. N. Bergin, M.D., Pepeekeo Hospital, May 28, 1948.

Source: "Hospital Service in the United States," *Journal of the American Medical Association*, April 20, 1946, Vol. 130, No. 16, p. 1150 (except where noted). All hospitals registered with the A.M.A. except Aiea Naval, Wahiawa, Matsumura, Mitamura, Oto and Yamanoha.

Table 51  
HOSPITAL FACILITIES  
TERRITORY OF HAWAII, 1946<sup>1</sup>

CITY	HOSPITAL	TYPE	OWNER-SHIP	BEDS			% OCC. <sup>5</sup>	AVERAGE ADMIS- SIONS <sup>6</sup>	AV. DAYS STAY <sup>7</sup>	BASSI- NETS	NO. OF BIRTHS	
				UNSPEC- IFIED <sup>2</sup>	NOR- MAL <sup>3</sup>	COMPLE- MENT <sup>4</sup>						
Honolulu County												
Aiea	Aiea Community	Gen.	N.P.A.	43	33	33	79	24	1341	6.5	4	130
Aiea	U. S. Naval	Gen.	Navy	1150	...	...	160 <sup>7</sup>	1837	23894	27.6	...	...
Ewa	Ewa	Gen.	N.P.A.	42	48	48	49	23	1294	6.5	5	134
Honolulu	Kalihi	Lepro.	Terr.	44	63	63	21	14	30	170.4	...	4
Honolulu	Kapiolani	Mat.-Gyn.	N.P.A.	105	105	105	44	62	3633	6.2	85	2609
Honolulu	Kauikeolani	Child.	N.P.A.	100	100	100	57	70	4141	6.2	...	...
Honolulu	Kuakini	Gen.	N.P.A.	120	118	125	81	101	5131	7.2	20	858
Honolulu	Leahi	TB	N.P.A.	480	506	485	96	462	364	463.0	...	...
Honolulu	Queen's	Gen.	N.P.A.	384	370	370	81	307	12309	9.1	46	1883
Honolulu	St. Francis	Gen.	Church	160	157	165	69	115	5623	7.5	42	1429
Honolulu	Shriners	Orth.	N.P.A.	28	28	28	78	22	85	94.4	...	...
Honolulu	Tripler	Gen.	Army	621	...	...	62 <sup>7</sup>	383	6634	21.1	22	381
Kahuku	Kahuku	Gen.	N.P.A.	30	34	34	62	19	860	8.1	6	142
Kaneohe	Territorial	Mental	Terr.	1100	814	1150	95	1100	339	1185.	...	...
Pearl City	Waimano Home	Men. Def.	Terr.	713	718	718	80 <sup>7</sup>	569	105	...	...	...
Pearl Harbor	U. S. Naval	Gen.	Navy	1000	...	...	...	...	...	...	...	...
Schof. Bks.	Station <sup>8</sup>	Gen.	Army	250	...	...	167	417	6451	23.6	20	104
Wahiawa	Wahiawa <sup>8</sup>	Gen.	N.P.A.	...	107	107	70	75 <sup>7</sup>	...	...	...	...
Waialua	Waialua Agric. Co.	Gen.	N.P.A.	38	36	37	32	12	493	8.9	6	131
Waipahu	Oahu Sugar Co.	Gen.	N.P.A.	50	52	52	52	27 <sup>7</sup>	...	...	8	...
Waipahu	Tamura	Gen.	Indiv.	7	7	7	43 <sup>7</sup>	3	175	6.3	3	111
Hawaii County												
Haina	Honokaa Plant.	Gen.	N.P.A.	30	30	30	42	10	490	7.4	4	46
Hakalau	Hakalau Plant.	Gen.	N.P.A.	20	24	24	15 <sup>7</sup>	3	363	3.0	3	33
Hilo	Hilo Memorial	Gen.	County	183	188	183	51	94	3163	10.8	22	413
Hilo	Dr. Z. Matayoshi	Gen.	Indiv.	42	26	26	60	12	465	9.4	5	33
Hilo	Matsumura	Mat.	.....	...	8	8	...	...	...	...	...	...
Hilo	Mitamura	Gen.	.....	...	9	9	...	...	...	...	...	...
Hilo	Oto	Gen.	.....	...	16	16	...	...	...	...	...	...
Hilo	Puumaile	TB	County	225	225	225	96	217	131	605	...	...
Hilo	Yamanoha	Gen.	.....	...	8	8	...	...	...	...	...	...
Honokaa	Okada	Gen.	Indiv.	6	6	6	83 <sup>7</sup>	5	186	9.8	3	55
Kealakekua	Kona	Gen.	County	50	52	44	44	16	499	11.7	7	111
Kealakekua	Kona Community	Gen.	.....	...	18	18	...	...	...	...	...	...
Kohala	Kohala County	Gen.	County	50	50	45	30	15	628	8.7	6	113
Laupahoehoe	Laupahoehoe Sugar Co.	Gen.	N.P.A.	27	27	27	30	14	591	8.7	4	40
Olaa	Olaa Plant.	Gen.	N.P.A.	42	51	47	31	17	717	8.7	12	128
Ookala	Ookala <sup>9</sup>	Gen.	N.P.A.	9	9	9	...	...	110	...	4	12
Paauilo	Hamakua Mill Co.	Gen.	N.P.A.	11	11	11	36 <sup>7</sup>	4	193	7.6	2	20
Pahala	Hawaiian Agric. Co.	Gen.	N.P.A.	37	35	35	55	19	767	9.0	7	96
Pepeekeo	Pepeekeo Plant.	Gen.	N.P.A.	40	43	43	43	26	860	11.0	4	87
Maui County												
Hana	Hana County	Gen.	County	25	30	30	30	8	237	12.3	4	31
Hoolehua	Shingle Memorial	Gen.	Church	35	50	28	47	21	781	9.8	7	68
Kula	Kula Gen.	Gen.	County	20	22	22	45 <sup>7</sup>	9	429	7.7	6	27
Kula	Kula Sanatorium	TB	County	212	202	202	84	165	153	394	...	...
Lahaina	Pioneer Mill Co.	Gen.	N.P.A.	65	67	67	60	45	1467	11.2	9	108
Lanai City	Lanai City	Gen.	N.P.A.	25	26	26	36	9	661	5.0	6	62
Maunaloa	Maunaloa	Gen.	N.P.A.	19	19	19	21 <sup>7</sup>	4	337	4.3	5	19
Paia	Paia Hospital	Gen.	N.P.A.	78	80	80	50	39	1751	8.1	10	199
Puunene	Puunene	Gen.	N.P.A.	100	97	97	45	50	2480	7.4	10	181
Wailuku	Malulani	Gen.	County	110	82	82	60	52	2384	8.0	16	357
Kauai County												
Hanapepe	Betsui Memorial	Gen.	Indiv.	14	14	14	21 <sup>7</sup>	3	288	3.8	5	69
Kapaa	Mahelona Memorial	TB	County	110	115	115	88	92	55	611.	...	...
Koloa	Koloa Sugar Co.	Gen.	N.P.A.	22	22	22	50 <sup>7</sup>	11	335	12.0	3	52
Lihue	Wilcox Memorial	Gen.	N.P.A.	94	93	93	52	50	1984	9.2	14	336
Waimea	Waimea	Gen.	N.P.A.	36	35	38	67	28	1154	8.8	7	147
Kalawao County												
Kalaupapa	Kalaupapa Hospital	Lepro.	Terr.	...	62	62	...	...	...	...	...	...
Kalaupapa	Kalaupapa Settlement	Lepro.	Terr.	340	...	...	90 <sup>7</sup>	306	7	...	2	...

<sup>1</sup>In most cases for year ended September 30, 1946.

<sup>2</sup>From J.A.M.A. source. Probably actual (complement) beds intended.

<sup>3</sup>"Bed capacity for which building was planned at 80 sq. ft. per bed." From *Report of Hospital Survey and Planning, Territory of Hawaii* (Territorial Board of Health, February 1948), Table 1.

<sup>4</sup>"Beds installed regardless of floor space built for beds." See footnote 3 above for source.

<sup>5</sup>See footnote 3 above for source. Not very consistent with J.A.M.A. data.

<sup>6</sup>Excluding newborn infants.

<sup>7</sup>Calculated.

<sup>8</sup>Data from Territorial Dept. of Health, courtesy of W. B. Meister, M.D.

<sup>9</sup>Kaiwiki Sugar Co.

Source: "Hospital Service in the United States", *Journal of the American Medical Association*, April 12, 1947, Vol. 133, No. 15, p. 1143. All hospitals registered with the A.M.A. except Station, Wahiawa, Matsumura, Mitamura, Oto, Yamanoha, Kona Community, and Kalaupapa Hospital.



Table 52a<sup>1</sup>  
HOSPITAL FACILITIES  
TERRITORY OF HAWAII, 1947<sup>2</sup>

CITY	HOSPITAL	TYPE	OWNER-SHIP	BEDS <sup>3</sup>	AVERAGE CENSUS <sup>4</sup>	ADMISSIONS <sup>4</sup>	BASSINETS	NO. OF BIRTHS
<i>Honolulu County</i>								
Aiea	U. S. Naval	Gen.	Navy	750	579	9197	18	195
Ewa	Ewa Plantation	Gen.	N.P.A.	44	24	1501	6	185
Honolulu	Kalihi	Lepro.	Territory	44	11	19	...	2
Honolulu	Kapiolani	Mat. & Gyn.	N.P.A.	165	79	4812	87	3489
Honolulu	Kauikeolani	Child.	N.P.A.	122	77	4424	...	...
Honolulu	Kuakini	Gen.	N.P.A.	120	102	5073	20	811
Honolulu	Leahi	TB	N.P.A.	738	520	516	...	...
Honolulu	Queen's	Gen.	N.P.A.	380	307	12278	44	1861
Honolulu	St. Francis	Gen.	Church	208	151	7561	42	1862
Honolulu	Shriners	Orth.	N.P.A.	28	27	128	...	...
Honolulu	Tripler	Gen.	Army	750	378	8560	22	407
Kahuku	Kahuku	Gen.	N.P.A.	30	18	875	6	142
Kaneohe	Territorial	Mental	Territory	1159	1163	347	...	...
Pearl City	Waimano Home	Ment. Defic.	Territory	650	612	618	...	...
Waialua	Waialua Agric. Co.	Gen.	N.P.A.	37	12	472	6	100
Waipahu	Oahu Sugar Co.	Gen.	N.P.A.	52	32	1332	6	118
Waipahu	Tamura	Gen.	Indiv.	7	3	175	3	124
<i>Hawaii County</i>								
Haina	Honokaa Plant.	Gen.	N.P.A.	30	13	451	4	43
Hakalau	Hakalau Plant.	Gen.	N.P.A.	20	11	333	3	45
Hilo	Hilo Memorial	Gen.	County	183	117	3690	22	522
Hilo	Dr. Z. Matayoshi	Gen.	Indiv.	42	9	422	5	42
Hilo	Puumale	TB	County	225	161	122	...	...
Honokaa	Okada	Gen.	Indiv.	6	3	167	3	52
Kealahou	Kona	Gen.	County	50	15	474	9	123
Kohala	Kohala County	Gen.	County	50	15	883	6	101
Laupahoehoe	Laupahoehoe Sugar Co.	Gen.	N.P.A.	28	13	509	4	34
Olaa	Olaa Plant.	Gen.	N.P.A.	41	22	745	11	72
Ookala	Ookala	Gen.	N.P.A.	9	4	91	4	15
Paauilo	Hamakua Mill Co.	Gen.	N.P.A.	11	6	253	2	21
Pahala	Hawaiian Agric. Co.	Gen.	N.P.A.	37	20	822	6	96
Pepeekeo	Pepeekeo Plant.	Gen.	N.P.A.	41	20	793	4	90
<i>Maui County</i>								
Hana	Hana County	Gen.	County	25	8	293	4	35
Hoolehua	Shingle Memorial	Gen.	Church	32	23	1007	6	95
Kula	Kula General	Gen.	County	20	7	369	6	22
Kula	Kula Sanatorium	TB	County	212	182	153	...	...
Lahaina	Pioneer Mill Co.	Gen.	N.P.A.	65	42	1248	9	135
Lanai City	Lanai City	Gen.	N.P.A.	23	7	528	6	79
Maunaloa	Maunaloa	Gen.	N.P.A.	19	5	268	5	10
Paia	Paia	Gen.	N.P.A.	78	42	1924	10	225
Puunene	Puunene	Gen.	N.P.A.	95	60	2007	10	222
Wailuku	Malulani	Gen.	County	110	54	3388	21	384
<i>Kauai County</i>								
Kapaa	Mahelona Memorial	TB	County	110	85	55	...	...
Lihue	Wilcox Memorial	Gen.	N.P.A.	94	46	2102	14	373
Waimea	Waimea	Gen.	N.P.A.	35	28	1276	7	206
<i>Kalawao County</i>								
Kalaupapa	Kalaupapa Settlement	Lepro.	Territory	340	288	35	2	1

<sup>1</sup>Because this source was not yet available at the time the text and summary tables were prepared, no use of it is made elsewhere in this study. It is included here only for the sake of completeness. Territorial data for 1947 used in the text are based on a Board of Health questionnaire (see following table), and only 1946 data are discussed with regard to the mainland.

<sup>2</sup>Following are comparative national (mainland U. S.) data for 1947, which can be inserted by the reader in the proper summary tables (as noted in the preceding footnote, this source—the annual hospital number of the *Journal of the A.M.A.*—arrived too late for inclusion in the remainder of the volume). These are quoted or calculated from the same source, pp. 1386 and 1393.

TYPE OF DATA	ALL HOSPITALS	GENERAL HOSPITALS	TB SANATORIA	ALL OTHER HOSPITALS
Number of hospitals	6,276	4,539	441	1,296
Number of beds	1,425,222	592,453	81,328	751,441
Percent occupied	85.4	77.1	76.9	92.9
Average census (excluding newborn)	1,217,229	456,761	62,575	697,893
Admissions (excluding newborn)	15,829,514	14,665,195	99,080	1,065,239
Average days stay	28.1	11.4	230.5	239.1
Bassinets	86,378	82,303	32	4,043
Number of births	2,837,139	2,756,959	176	80,004

\*Not specified whether normal (rated) or complement (actual).

\*Exclusive of newborn infants.

Source: "Hospital Service in the United States", *Journal of the American Medical Association*, Vol. 137, No. 16, August 14, 1948, p. 1455. Data are for the most recent available statistical year.

Table 52b  
HOSPITAL FACILITIES  
TERRITORY OF HAWAII 1947

ISLAND	CITY	INSTITUTION	TYPE	OWNER-SHIP	DATA FOR YR. ENDED	BEDS <sup>1</sup>	% OCC. <sup>2</sup>	AVERAGE DAILY CENSUS <sup>3</sup>	ADMISS-IONS <sup>3</sup>	AV. DAYS STAY <sup>2</sup>	PATIENTS PER MO. <sup>4</sup>	BASSI-NETS	LIVE BIRTHS	COST PER PATIENT DAY
<i>Honolulu County</i>														
Oahu	Aiea	Aiea General	Gen.	N.P.A.	12/31/47	50	46	23 <sup>5</sup>	1488 <sup>5</sup>	5.1 <sup>5</sup>	166	4	132 <sup>5</sup>	\$18
"	Aiea	U. S. Naval <sup>6</sup>	Gen.	Navy	.....	750	74	557	8909	22.8	...	24	385	..
"	Ewa	Ewa <sup>6</sup>	Gen.	N.P.A.	.....	47	51	24	1501	5.8	...	..	...	..
"	Honolulu	Kalihi	Lepro.	Terr.	12/31/47	69	17	12	61	72.	...	0	2.	..
"	Honolulu	Kapiolani	Mat.-Gyn.	N.P.A.	12/31/47	105	72	76	4717	5.9	392	87	3457	20
"	Honolulu	Kauikeolani	Child.	N.P.A.	12/31/47	122	61	75	4254	6.4	397	0	0	13
"	Honolulu	Kuakini	Gen.	N.P.A.	6/30/47	120	98	117	5073	8.4	423	20	776	10
"	Honolulu	Leahi	TB	N.P.A.	6/30/47	738	70	520	516	368.	520	0	3	6
"	Honolulu	The Queen's	Gen.	N.P.A.	12/31/47	400	74	298	12349	8.8	1029	46	1997	19
"	Honolulu	St. Francis	Gen.	Church	12/31/47	208	74	153	7749	7.2	178	42	1774	16
"	Honolulu	Shriners	Orth.	Frat.	2/29/48	28	100	28	140	73.	...	0	0	..
"	Honolulu	Tripler <sup>6</sup>	Gen.	Army	.....	...	...	...	...	...	...	..	...	..
"	Kahuku	Kahuku <sup>5</sup>	Gen.	Corp.	12/31/47	34	44	15	744	7.4	...	7	121	14
"	Kaneohe	Territorial	Mental	Terr.	6/30/47	1160	100	1163	347	1222.	1160	0	1	3
"	Pearl City	Waimano Home <sup>6</sup>	Men. Def.	Terr.	.....	...	...	...	...	...	...	..	...	..
"	Schof. Bks.	26th Station <sup>5</sup>	Gen.	Army	.....	250	70	175	3550	18.0	...	..	...	..
"	Wahiawa	Wahiawa Gen.	Gen.	N.P.A.	12/31/47	55	81	44.5 <sup>5</sup>	2059	8.0	29	15	339	11
"	Waialua	Waialua Agric.	Gen.	N.P.A.	12/31/47	37	32	12	472	9.3	39	6	100	..
"	Waipahu	Oahu Sugar Co.	Gen.	Plant	2/29/48	52	60	31	1269	8.9	125	6	108	..
"	Waipahu	The Tamura	Gen.	Indiv.	9/30/47	7	43	3	175	6.3	14	3	124	10
<i>Hawaii County</i>														
Hawaii	Haina	Honokaa	Gen.	Plant.	12/31/47	30	47	14	457	11.2	41	2	57	4
"	Hakalau	Hakalau Plant.	Gen.	Plant.	12/31/47	20	55	11	322	12.5	30	3	37	8
"	Hilo	Hilo Memorial	Gen.	County	12/31/47	183	64	118	4203	10.2	410	22	614	14
"	Hilo	Matayoshi	Gen.	Indiv.	12/31/47	42	21	9	444	7.4	250	5	47	7
"	Hilo	Matsumura	Gen.	Indiv.	.....	5	30	1.5	93	5.9	8	3	85	..
"	Hilo	Mitamura <sup>7</sup>	....	.....	.....	...	...	...	...	...	...	..	...	..
"	Hilo	Oto	Gen.	Indiv.	12/31/47	16	34	5.4	197	10.0	16	2	44	8
"	Hilo	Puumaile	TB	County	6/30/47	126	127	160	122	479	155	0	0	8
"	Hilo	Yamanoha	Gen.	Indiv.	12/31/47	15	8	1.2	51	8.6	5	2	11	..
"	Honokaa	Okada	Gen.	Indiv.	12/31/47	6	58	3.5	167	7.7	14	3	52	5
"	Kealahou <sup>8</sup>	Kona	Gen.	County	1/1/48	42	36	15	489	11.2	44	9	138	17
"	Kealahou <sup>8</sup>	Kona Community <sup>9</sup>	Gen.	County	12/31/47	28	9	2.4	139	6.3	12	6	29	5
"	Kealahou <sup>8</sup>	Kohala County	Gen.	N.P.A.	12/31/47	50	36	18	772	8.5	18	6	99	13
"	Laupahoehoe	Laupahoehoe	Gen.	County	9/30/47	27	68	13	519	9.1	43	4	34	6
"	Olaa	Olaa	Gen.	Plant.	9/30/47	41	48	28	745	13.7	70	11	127	14
"	Ookala	Ookala	Gen.	Corp.	12/31/47	9	44	4.0	93	15.7	9	4	13	15
"	Paaui	Hamakua Mill Co.	Gen.-Mat.	Plant.	12/31/47	11	54	5.9	314	6.9	782	2	27	..
"	Pahala	Haw'n Agric. Co.	Gen.	N.P.A.	10/31/47	37	57	21	679	11.3	79	7	104	7
"	Pepeekeo	Pepeekeo Plant.	Gen.	Indus.	12/31/47	41	51	21	794	9.7	...	4	98	9



Table 52b (Continued)  
HOSPITAL FACILITIES  
TERRITORY OF HAWAII, 1947

Maui County													
Maui	Hana	Gen.	County	12/31/47	25	32	8	300	9.7	27	4	34	12
Molokai	Hoolehua	Gen.	Church	12/31/47	35	34	12	1031	4.2	...	7	101	13
Maui	Keokea	Gen.	County	6/30/47	20	35	7	369	6.9	...	6	22	15
"	Keokea	TB	County	6/30/47	215	85	182	153	434	194	0	0	8
"	Lahaina	Gen.	N.P.A.	12/31/47	65	63	41	1147	13.0	106	9	121	7
Lanai	Lanai City	Gen.	N.P.A.	5/31/47	26	27	7	528	4.8	1050	6	95	..
Molokai	Maunaloa	Gen.	Indus.	12/31/47	19	26	5	298	6.1	464	5	13	..
Maui	Paia	Gen.	Indus.	3/1/48	78	55	43	1835	8.6	42	10	234	14
"	Puunene	Gen.	Corp.	12/31/47	95	37	35	2007	6.4	162	10	227	..
"	Wailuku	Gen.	County	12/31/47	110	52	57	3071	6.8	288	16	372	12
Kauai County													
Kauai	Hanapepe	Gen.	Indiv.	.....	...	...	..	...	...	...	..	...	..
"	Kealia	TB	Terr.	6/30/47	110	77	85	55	564	88	0	0	7
"	Koloa	Gen.	.....	.....	...	...	..	...	...	...	..	...	..
"	Lihue	Gen.	N.P.A.	10/31/47	94	50	47	2098	8.2	207	14	377	12
"	Waimea	Gen.	N.P.A.	10/31/47	36	78	28	1276	8.0	120	7	206	13
Kalawao County													
Molokai	Kalaupapa Settlement	Gen. & Lepro.	Terr.	9/30/47	340	85	288	35	..	288	2	1	..

<sup>1</sup>Not specified whether normal or complement beds, except Aiea General Hospital and Kahuku Hospital (where normal and complement beds were equal in number), and Ewa (complement of 47, normal of 48).

<sup>2</sup>Calculated.

<sup>3</sup>Exclusive of newborn.

<sup>4</sup>Estimated average number of patients receiving care in month.

<sup>5</sup>Data from questionnaire returned to the Public Health Committee of the Chamber of Commerce of Honolulu by the hospital, 1948.

<sup>6</sup>No data available.

<sup>7</sup>Discontinued operation during 1947.

<sup>8</sup>Actually located in rural North Kona.

<sup>9</sup>Discontinued operation January 1948.

<sup>10</sup>Closed June 30, 1947.

<sup>11</sup>Closed June 27, 1947.

N.P.A., Non-profit association.

Source: Questionnaires returned to Territorial Department of Health, Division of Hospital Planning, 1948, except where otherwise indicated.

Table 53  
FACILITIES AND SERVICES  
THE QUEEN'S HOSPITAL  
Punchbowl and Vineyard Streets, Honolulu, T. H.  
1934-1948

YEAR <sup>1</sup>	BEDS <sup>2</sup>		BASSI- NETS	ADMIS- SIONS <sup>3</sup>	DIS- CHARGES <sup>4</sup>	TOTAL PATIENT DAYS	AV. DAYS STAY	AV. CEN- SUS	AV. % OCC. <sup>5</sup>	NO. OF BIRTHS	NO. OF SURG. OPER.	NO. OF LAB. EXAM.	NO. OF X-RAY EXAM.
	COMPLE- MENT	NORMAL											
1934	264	264	18	6718	6698	59805	8.7	164	62.1	591	2077	27809	3600
1935	254	254	18	7392	7373	66829	8.98	183	72.0	629	3049	30541	3631
1936	300	300	20	8097	8112	71272	8.62	195	75.0	695	3250	33233	3997
1937	300	300	25	8718	8688	78736	8.87	216	72.0	770	3419	37456	5176
1938	284	284	25	9409	9423	86998	9.05	238	83.8	881	3804	54374	6277
1939	284	284	30	10301	10276	87601	8.36	240	77.42	1196	4317	57738	6908
1940	284	284	36	11808	11717	97905	8.18	267.5	84.65	1428	4445	65596	7887
1941	290	290	40	12660	12693	109702	8.60	300.5	92	1485	5159	70844	7814
1942	300	300	40	13373	13373	112491	8.27	308.2	102.7	1750	5192	51795	6184
1943	312	312	46	13408	13420	112232	8.21	307.5	98.6	1978	5363	46107	8215
1944	305	305	46	13326	13256	98796	7.45	269.9	88.5	1944	6159	69030	13483
1945	384	384	46	15019	15026	110594	7.36	302.9	78.9	2081	6933	86651	18149
1946	384	384	46	14174 <sup>6</sup>	14167	112075	7.91	307.1	79.9	1863	6556	110560	18150
1947	400	400	46	14455 <sup>6</sup>	14503	108873	7.50	298.2	77.6	2106	6911	114285	17966
1948	384	384	46	5721	5615	43734	8.7	240.8	62.7	900	2211 <sup>7</sup>	55000 <sup>8</sup>	5500 <sup>8</sup>

<sup>1</sup>Calendar years.

<sup>2</sup>"Complement" beds means those set-up for actual use; "normal" (or rated) beds means the bed capacity for which the hospital was planned.

<sup>3</sup>Including newborn infants, 1934-47; excluding newborn infants, 1948.

<sup>4</sup>Including newborn infants, 1934-47, and deaths, 1934-48; excluding newborn infants, 1948.

<sup>5</sup>For 1934-1938 and 1942 and 1943, calculated for those years.

<sup>6</sup>Includes persons in hospital at beginning of year.

<sup>7</sup>Excludes cystoscopies (104) and blood transfusions.

<sup>8</sup>Estimated.

Source: For 1934-1943, annual reports of The Queen's Hospital for those years (bed capacity and bassinet data for 1934 from Rear Admiral Lucius W. Johnson, MC, USN, "Survey of Honolulu Hospitals", Public Health Committee of the Chamber of Commerce of Honolulu, reprinted from the *Hawaii Medical Journal*, November-December, 1944); for 1944-1948, questionnaires returned by the hospital (April and September 1948).

Table 54  
FACILITIES AND SERVICES  
SAINT FRANCIS HOSPITAL  
2260 Liliha Street, Honolulu, T. H.  
1934-1948

YEAR	BEDS		BASSI- NETS <sup>2</sup>	ADMIS- SIONS <sup>2</sup>	DIS- CHARGES <sup>2</sup>	TOTAL PATIENT DAYS <sup>2</sup>	AV. DAYS STAY <sup>3</sup>	AV. DAILY CENSUS <sup>4</sup>	AV. % OCC. <sup>5</sup>		NO. OF BIRTHS <sup>2</sup>	NO. OF SURG. OPER.	NO. OF LAB. EXAM.	NO. OF X-RAY EXAM.
	COMPLE- MENT <sup>1</sup>	NORMAL							COMPLE- MENT	NORMAL				
1934	60	60	10	1245	....	13505	10.8	37	61.7	61.7	129	....	....	....
1935	60	60	10	1363	....	18250	13.4	50	83.3	83.3	120	....	....	....
1936	65	60	10	1745	....	18666	10.7	51	78.5	85.0	164	....	....	....
1937	65	60	10	2216	....	21900	9.9	60	92.3	100.0	207	....	....	....
1938	65	60	10	2430	....	18250	7.5	50	76.9	83.3	361	....	....	....
1939	65	60	10	2551	....	18615	7.3	51	78.5	85.0	375	....	....	....
1940	69	60	12	2645	....	21228	8.0	58	84.0	96.7	394	....	....	....
1941	69	60	12	2753	3198	22621	7.1	62.0	89.9	103.3	444	1580	....	....
1942	81	60	12	3773	4274	31983	7.5	87.6	108.1	146.0	528	2442	....	....
1943	100	60	30	4305	5188	39344	7.6	107.8	107.8	179.7	909	2853	....	1394
1944	100	60	30	4925	6270	47244	7.7	129.1	129.1	215.2	1353	3025	35076	1719
1945	100	60	30	5623	7036	51499	7.3	141.1	141.1	235.2	1522	3882	38237	1686
1946	160	160	42	7178	8757	66158	7.6	181.3	113.3	113.3	1793	4307	52748	2500
1947	208	208	42	7749	9385	66325	7.1	181.7	87.4	87.4	1648	4724	60327	2893
1948 <sup>6</sup>	213	213	42	3725	3725 <sup>7</sup>	32518 <sup>7</sup>	8.7	177.6	83.3	83.3	756	2271	34634	2021

<sup>1</sup>Data for 1943 and 1944 from *Biennial Report, 1943-1944, St. Francis Hospital*.

<sup>2</sup>Data for 1941-1944 from *Biennial Report, 1941-1942 and Biennial Report, 1943-1944*. Admissions figures exclude newborn infants in 1941-1946 and 1948 (and possibly in other years). Discharges include newborn infants and hospital deaths in 1941-1944 and 1947, and include newborn infants but exclude deaths in 1945 and 1946 (unknown in other years). Total patient days include newborn infants in 1944-1947 (unknown in other years). Total patient days calculated from average census data for 1934-1940.

<sup>3</sup>Calculated from total patient days and admissions (1934-1940) or discharges (1941-1947).

<sup>4</sup>Calculated from total patient days, 1941-1947.

<sup>5</sup>Calculated from average census and bed capacity, 1934-1947.

<sup>6</sup>Six-month period ending May 31, 1948. This period overlaps the previous one (calendar year 1947) by one month.

<sup>7</sup>Including deaths but excluding newborn infants.

Source: Except where otherwise indicated, 1934-1943 data are from Rear Admiral Lucius W. Johnson, M.C., U.S.N., "Survey of Honolulu Hospitals" (Public Health Committee of the Chamber of Commerce of Honolulu, reprinted from *Hawaii Medical Journal*, November-December, 1944), and 1944-1948 data from questionnaires filled in by the hospital April 13, 1948 and September 7, 1948.



Table 55  
FACILITIES AND SERVICES  
KUAKINI HOSPITAL<sup>1</sup>  
347 North Kuakini Street, Honolulu 52, T. H.  
1934-1948

YEAR	BEDS <sup>2</sup>		BASSETTS	ADMISSIONS	DISCHARGES	TOTAL PATIENT DAYS	AV. DAYS STAY	AV. CENSUS	AV. % OCC. <sup>3</sup>	NO. OF BIRTHS	NO. OF SURG. OPER.	NO. OF LAB. EXAM.	NO. OF X-RAY EXAM.
	COMPLEMENT	NORMAL											
1934	120	120	5	1928	1806	19332	10.0	52.9	44.1	43	....	14604	377
1935	120	120	5	1142	1089	10955	9.5	30.0	25.0	52	....	15323	440
1936	120	120	5	2415	2293	22270	9.2	61.0	50.8	...	....	15511	596
1937	120	120	5	2882	2747	27625	9.5	75.6	63.0	80	....	15737	765
1938	120	150	8	3034	2908	30742	10.1	84.2	56.2	...	....	16640	922
1939	156	156	10	3302	3131	33106	10.0	90.7	58.2	165	....	17049	980
1940	156	156	20	4143	3980	39068	9.6	106.7	68.4	275	2017	17552	1119
1941	156	156	20	4800	4662	45632	9.5	125.0	80.2	398	2242	17916	2900
1942	181	156	20/8	5064	4899	42277	8.3	115.8	74.2 <sup>4</sup>	641	238	17947	3115
1943	181	156	20/8	6068	6102	46165	7.8	126.3	81.0 <sup>5</sup>	784	2526	18616	4705
1944	120	120	20	5568	5450	43338	7.8	118.7	84.8	731	2924	24801 <sup>6</sup>	3101
1945	120	120	20	5883	5889	42654	7.1	116.8	83.4	782	2682	25698	2930
1946 <sup>7</sup>	120	120	20	5863	5856	41945	7.1	114.6	81.9	800	2444	27624	2954
1947 <sup>7</sup>	121	121	20	5884	5899	42663	7.0	117	83.0	827	2525	26571	2621
1948 <sup>7</sup>	120	120	20	5978	5977	40056	6.7 <sup>8</sup>	109	77.9 <sup>8</sup>	780	2230	25801	1491

<sup>1</sup>Formerly called Japanese Hospital.

<sup>2</sup>"Complement" beds means those set-up for actual use; "normal" (or rated) beds means the bed capacity for which the hospital was planned.

<sup>3</sup>Based on normal beds for 1934-1943 (calculated); based on complement beds and bassinets for 1944-1948.

<sup>4</sup>Based on complement beds, figure would be 63.9%.

<sup>5</sup>Based on complement beds, figure would be 69.8%.

<sup>6</sup>February through December.

<sup>7</sup>Fiscal years ending June 30th. Earlier years are calendar years.

<sup>8</sup>Calculated.

Source: For 1934-1943, Rear Admiral Lucius W. Johnson, MC, USN, "Survey of Honolulu Hospitals" (Public Health Committee of the Chamber of Commerce of Honolulu, reprinted from the *Hawaii Medical Journal*, November-December, 1944); for 1944-1948, questionnaires returned by the hospital (April and August 1948). Neither source indicated whether newborn infants and deaths were included in "admissions," "discharges," "total patient days", and other columns. A hospital official stated that "average census" included newborn infants beginning in 1943.

Table 56  
FACILITIES AND SERVICES  
KAPIOLANI MATERNITY & GYNCOLOGICAL HOSPITAL  
1611 Bingham Street, Honolulu, T. H.  
1934-1948

YEAR	BEDS <sup>1</sup>		BASSI- NETS	ADMIS- SIONS <sup>2</sup>	DIS- CHARGES <sup>2</sup>	TOTAL PATIENT DAYS <sup>2</sup>	AV. DAYS STAY <sup>2</sup>	AV. CEN- SUS <sup>2</sup>	AV. % OCC. <sup>2</sup>	NO. OF BIRTHS	NO. OF SURG. OPER.	NO. OF LAB. EXAM.	NO. OF X-RAY EXAM.
	COMPLE- MENT	NORMAL											
1934	50	50	30	1363	....	9984	7.3	27.4	54.8	637	497	.....	....
1935	50	50	30	1440	....	10250	7.1	28.1	56.2	687	...	.....	....
1936	50	50	30	1560	....	11183	7.2	30.5	61.0	750	368	.....	....
1937	50	50	30	1655	....	11884	7.2	32.5	65.0	754	567	.....	....
1938	50	50	30	1583	....	12786	8.1	35.0	70.0	820	500	.....	....
1939	50	50	30	1766	....	14104	8.0	38.6	77.2	1052	624	.....	....
1940	50	50	30	1876	....	14144	7.5	38.6	77.2	1158	534	.....	....
1941	50	50	30	2502	....	20376	8.1	55.8	111.6	1761	633	.....	....
1942	50	50	50	2751	....	21741	7.9	59.6	119.2	2085	438	.....	....
1943	64	50	70	2929	....	22260	7.6	61.0	122.0 <sup>3</sup>	2552	163	.....	....
1944	68	68	71	2878	2892	18301	6.3	50.0	73.5	2588	1021	5790	0
1945	64	64	75	2733	2733	16683	6.1	45.7	71.4	2273	1050	4865	0
1946	105	105	87	4134	4111	26292	6.4	72.0	68.6	2922	823	14716	230
1947	105	105	87	4717	4726	27797	5.9	76.2	72.6	3457	823	18411	428
1948	105	105	87	2148	2146	11750	6.6	72	61.8	1504	283 <sup>4</sup>	7622	156

(1st half)

<sup>1</sup>"Complement" beds means those set-up for actual use; "normal" (or rated) beds means the bed capacity for which the hospital was planned.

<sup>2</sup>Excluding newborn infants.

<sup>3</sup>Based on normal bed capacity. Based on complement beds, figure is 95.3%.

<sup>4</sup>Major operations only. There were also 250 minor operations.

Source: For 1934-1943, Rear Admiral Lucius W. Johnson, MC, USN, "Survey of Honolulu Hospitals" (Public Health Committee of the Chamber of Commerce of Honolulu, reprinted from *Hawaii Medical Journal*, November-December 1944); 1944-1948 from questionnaires returned by Kapiolani Hospital; bed and bassinet capacity for 1944 and 1945 from annual hospital numbers of the *Journal of the A.M.A.* (127:844 and 130:1150); average days stay, average census and percent occupancy for 1944-1947 calculated.

Table 57  
FACILITIES AND SERVICES  
KAUIKEOLANI CHILDREN'S HOSPITAL<sup>1</sup>  
226 North Kuakini St.  
Honolulu, T. H.  
1934-1948

YEAR	BEDS			ADMIS- SIONS	DIS- CHARGES	TOTAL PATIENT DAYS	AV. DAYS STAY	AV. CENSUS	AV. % OCC.		NO. OF BIRTHS	NO. OF SURG. OPER.	NO. OF LAB. EXAM.	NO. OF X-RAY EXAM.
	COMPLE- MENT	NORMAL	BASSI- NETS						COMPLE- MENT	NORMAL				
1934	75	75	..	1587	1575	14215	9.0	38.9	51.8	51.8	....	....	....	....
1935	75	75	..	2430	2311	14981	6.2	41.1	54.8	54.8	....	530	4507	670
1936	75	75	..	2278	2148	16477	7.2	45.0	60.0	60.0	....	877	5767	584
1937	75	75	..	2151	2121	17520	8.1	48.0	64.0	64.0	....	1015	7951	643
1938	75	75	..	2203	2139	18304	8.3	50.1	66.8	66.8	....	1107	9281	847
1939	75	75	..	2287	2258	16914	7.4	46.3	61.7	61.7	....	1221	9081	1108
1940	75	75	..	2712	2687	19542	7.2	53.5	71.3	71.3	....	1700	16350	1151
1941	92	75	..	3353	3287	22761	6.8	62.2	67.6	82.9	....	1285	20470	1076
1942	93	75	..	3343	3190	19022	5.7	52.1	56.0	69.5	....	1304	20050	1221
1943	93	75	..	3343	3331	22282	6.7	61.1	65.7	81.5	....	1100	19043	1445
1944	75	75	0	3655	3502	22278	6.3	61.03	81.4	81.4	0	1575	20715	1577
1945	104	104	0	3475	3458	21102	5.7	57.81	55.6	55.6	0	1186	19060	1847
1946	102	102	0	4424	4410	28036	6.0	76.81	75.3	75.3	0	1728	23990	1877
1947	122	122	0	4254	4263	27247	6.2	74.65	61.2	61.2	0	1937	27145	2179
1948	117	117	0	1742	1742	13909	7.67	76.43	65.3	65.3	0	468	15859	1495

(1st half)

<sup>1</sup>Kauaikeolani Children's Hospital maintains special standby facilities and a communicable disease unit which somewhat affect comparability of these data with corresponding figures for other hospitals.

Source: For 1934-1943, Rear Admiral Lucius W. Johnson, MC, USN, "Survey of Honolulu Hospitals" (Public Health Committee of the Chamber of Commerce of Honolulu, reprinted from *Hawaii Medical Journal*, November-December 1944) (a few averages were recalculated); for 1944-1948, questionnaires returned by the hospital.



Table 58  
FACILITIES AND SERVICES  
LEAHI HOSPITAL<sup>1</sup>  
649 Pokole St., Honolulu 26, T. H.  
1934-1948

YEAR <sup>2</sup>	BEDS <sup>3</sup>				ADMIS- SIONS <sup>4</sup>	DISCH. <sup>5</sup>	TOTAL PATIENT DAYS	AVERAGE CENSUS	% OCC. <sup>6</sup>	NO. OF BIRTHS	NO. OF SURGICAL OPER.	NO. OF LAB. EXAMS.	NO. OF X-RAY EXAMS.
	TOTAL	PERM.	SEMI- PERM.	TEMP.									
1934	440	...	...	...	346	329	142204	390	89	3	168	13319	2453
1935	440	...	...	...	330	314	147721	405	92	3	175	17958	3312
1936	440	...	...	...	327	342	147849	404	92	3	259	22201	3580
1937	440	...	...	...	317	292	148070	406	92	4	232	23937	3643
1938	445	...	...	...	321	315	155895	427	96	4	225	23070	4361
1939	445	...	...	...	276	272	156761	429	96	5	168	25784	4371
1940	500	...	...	...	325	358	154487	422	84	3	477	25958	5233
1941	500	...	...	...	397	426	157402	431	86	5	459	24194	5006
1942	490	...	...	...	418	373	147021	403	82	3	434	18493	4453
1943	493	...	...	...	402	379	159389	437	89	9	296	19448	5868
1944	488	275	...	213	441	433	169334	462	95	1	340	18659	6228
1945 (1st half)	485	275	...	210	220	215	83757	463	95	3	228	9026	3830
1945-46 <sup>7</sup>	480	275	...	205	364	357	168985	462	96	1	206	17248	7404
1946-47 <sup>7</sup>	718	277	115	326	516	332	189329	520	72	3	475	22304	8889
1947-48 <sup>7</sup>	948	277	345	326	429	425	241892	661	70	6	471	29713	11025

<sup>1</sup>Leahi Hospital (formerly called Leahi Home) is a tuberculosis sanatorium, operated by a non-profit association under a government subsidy.

<sup>2</sup>Calendar years through 1944.

<sup>3</sup>Data for 1934-1943 from annual hospital numbers of the *Journal of the American Medical Association*. Not specified (except for 1936) whether actual or normal, permanent or temporary beds. In 1936 both complement and rated bed figures were 440.

<sup>4</sup>Excluding newborn infants.

<sup>5</sup>Excluding newborn infants but including deaths.

<sup>6</sup>Based on total beds. Calculated.

<sup>7</sup>Fiscal years ended June 30th.

Source: Admissions Office of Leahi Hospital, and Annual and Biennial Reports of Leahi Hospital, except where otherwise indicated.

Table 59  
FACILITIES AND SERVICES  
WAHIAWA GENERAL HOSPITAL<sup>1</sup>  
128 Lehua St., Wahiawa, Oahu, T. H.  
1945-1948<sup>2</sup>

YEAR	BEDS <sup>3</sup>		BASIS- NETS	ADMIS- SIONS <sup>4</sup>	DIS- CHARGES <sup>5</sup>	TOTAL PATIENT DAYS	AV. DAYS STAY	AV. CEN- SUS	AV. % OCC.	NO. OF BIRTHS	NO. OF SURG. OPER.	NO. OF LAB. EXAM.	NO. OF X-RAY EXAM.
	COMPLE- MENT	NORMAL											
1945	110	110	10	1374	1411	27483	19.5	76	70	148	195	....	....
1946	125	125	10	1678	1658	32058	19	87	82	268	233	....	....
1947	89 55	89 55	15	2059	2034	16257	8	44.5	62	339	330	5080	1127
1948 (1st half)	55	55	15	903	903	5275	5.84	29.1	53	159	153	2387	549

<sup>1</sup>Until July 1947 the hospital also served a number of tuberculosis patients, a fact which somewhat limits comparability of the data. The tuberculosis wing was discontinued July 13, 1947.

<sup>2</sup>Wahiawa General Hospital was operated as an O.C.D. hospital from January 1942 until December 1944. In January 1945 it was opened as a civilian hospital under non-profit, community-wide auspices.

<sup>3</sup>"Complement beds" refers to actual number of beds set up; "normal beds" refers to the rated capacity of the hospital, the number for which it was planned. The top figures for 1947 are as of January; the lower figures, as of December. The decline during 1947 was a result of the closing of the hospital's large tuberculosis ward in July of that year. The hospital has space and equipment at present for 75 emergency beds.

<sup>4</sup>Exclusive of newborn infants.

<sup>5</sup>Including deaths but excluding newborn.

Source: Questionnaires returned by the hospital, May and September, 1948.

Table 60  
HOSPITAL PERSONNEL AND SPECIALIZED SERVICES  
TERRITORY OF HAWAII, 1947

ISLAND	CITY	INSTITUTION	PERSONNEL					SPECIALIZED SERVICES				
			RESI- DENTS	IN- TERNS	LAB. TECH- NICIANS	REG- ISTERED NURSES	STU- DENT NURSES	PRACT. NURSES AND ATTEN.	CLIN. LAB.	X-RAY DEPT.	PATH- OLOGIST	ROENT- GENOL- OGIST
Honolulu County												
Oahu	Aiea	Aiea General	2	0	0	4	0	7	No	Yes	No	No
"	Aiea	U. S. Naval <sup>1</sup>	..	..	..	..	..	..	..	..	..	..
"	Ewa	Ewa <sup>1</sup>	..	..	..	..	..	..	..	..	..	..
"	Honolulu	Kalihi	0	0	0	3	0	1	No	No	No	No
"	Honolulu	Kapiolani	3	0	3	62	0	29	Yes	Yes	Yes	Yes
"	Honolulu	Kauikeolani	1	2	5	49	14	9	Yes	Yes	Yes	Yes
"	Honolulu	Kuakini	2	0	5	45	45	28	Yes	Yes	Yes	Yes
"	Honolulu	Leahi	6	0	4	34	Varies	99	Yes	Yes	Consult.	Consult.
"	Honolulu	The Queen's	8	17	9	158	150	69	Yes	Yes	Yes	Yes
"	Honolulu	St. Francis	4	2	1	94	135	13	Yes	Yes	Yes	Yes
"	Honolulu	Shriners	1	0	..	8	..	6	Yes	Yes	Part-time	Part-time
"	Honolulu	Tripler <sup>1</sup>	..	..	..	..	..	..	..	..	..	..
"	Kahuku	Kahuku <sup>1</sup>	..	..	..	..	..	..	..	..	..	..
"	Kaneohe	Territorial	0	0	2	11	0	108	Yes	Yes	Yes	Yes
"	Pearl City	Waimano Home <sup>1</sup>	..	..	..	..	..	..	..	..	..	..
"	Schof. Bks.	26th Station <sup>1</sup>	..	..	..	..	..	..	..	..	..	..
"	Wahiawa	Wahiawa General	0	0	1	17	0	9	Yes	Yes	No	Part-time
"	Waialua	Waialua Agric. Co.	0	0	0	4	0	8	No	Yes	No	Yes
"	Waipahu	Oahu Sugar Co.	0	0	1	6	0	10	Yes	Yes	No	No
"	Waipahu	The Tamura	0	0	0	0	0	4	No	No	No	No
Hawaii County												
Hawaii	Haina	Honokaa	0	0	0	1	0	8	Yes	Yes	No	No
"	Hakalau	Hakalau Plantation	0	0	0	1	0	6	No	Yes	No	No
"	Hilo	Hilo Memorial	0	0	5	39	0	47	Yes	Yes	Yes	No
"	Hilo	Matayoshi	0	0	0	0	0	2	Yes	Yes	No	No
"	Hilo	Matsumura	0	0	0	0	0	2	No	Yes	No	No
"	Hilo	Mitamura <sup>2</sup>	..	..	..	..	..	..	..	..	..	..
"	Hilo	Oto	0	0	0	0	0	3	No	Yes	No	No
"	Hilo	Puumaile	1	0	2	10	0	35	Yes	Yes	Yes	Yes
"	Hilo	Yamanoha	0	0	0	0	0	1	No	Yes	No	No
"	Honakaa	Okada	0	0	0	0	0	1	No	No	No	No
"	Kealahou <sup>3</sup>	Kona	0	0	0	7	0	6	Yes	Yes	No	No
"	Kealahou <sup>3</sup>	Kona Comm. <sup>4</sup>	1	0	0	0	0	2	No	Yes	No	No
"	Kohala	Kohala County	0	0	0	5	0	6	No	Yes	No	No
"	Laupahoehoe	Laupahoehoe Sugar Co.	0	0	1	2	0	8	Yes	Yes	No	No
"	Olaa	Olaa	0	0	1	6	0	10	Yes	Yes	No	No
"	Ookala	Ookala	0	0	0	1	0	3	No	No	No	No
"	Paaui	Hamakua Mill Co.	0	0	0	1	0	5	No	No	No	No
"	Pahala	Hawaiian Agric. Co.	0	0	1	4	0	7	Yes	Yes	No	No
"	Pepeekeo	Pepeekeo Plantation	0	0	1	4	0	12	Yes	Yes	No	No
Maui County												
Maui	Hana	Hana	0	0	..	1	0	6	Yes	Yes	No	No
Molokai	Hoolehua	Robt. W. Shingle Jr., Mem.	0	0	1	4	0	8	Yes	Yes	Yes	No
Maui	Keokea	Kula General	2	0	3	12	0	47	{	No	No	No
"	Keokea	Kula Sanatorium								Yes	Yes	No
"	Lahaina	Pioneer Mill Co.	0	0	1	4	0	20	Yes	Yes	Yes	No
Lanai	Lanai City	Lanai City	0	0	1	5	0	6	Yes	Yes	No	No
Molokai	Maunaloa	Maunaloa	0	0	0	1	0	5	Yes	Yes	No	No
Maui	Paia	Paia	0	0	2	11	0	19	Yes	Yes	No	No
"	Puunene	Puunene	0	0	2	10	..	14	Yes	Yes	No	No
"	Wailuku	Malulani	0	0	2	14	0	24	Yes	Yes	No	No
Kauai County												
Kauai	Hanapepe	Betsui Memorial <sup>5</sup>	..	..	..	..	..	..	..	..	..	..
"	Kealia	Samuel Mahelona Mem.	0	0	0	8	0	15	Yes	Yes	No	No
"	Koloa	Koloa Sugar Co. <sup>6</sup>	..	..	..	..	..	..	..	..	..	..
"	Lihue	G. N. Wilcox Memorial	1	0	1	15	0	14	Yes	Yes	Part-time	Part-time
"	Waimea	Waimea	0	0	1	6	0	14	Yes	Yes	Yes	Yes
Kalawao County												
Molokai	Kalaupapa	Kalaupapa Settlement	3	..	2	7	0	12	Yes	Yes	No	No

<sup>1</sup>No data available.

<sup>2</sup>Discontinued operation during 1947.

<sup>3</sup>Actually located in rural North Kona.

<sup>4</sup>Discontinued operation January 1948.

<sup>5</sup>Closed June 30, 1947.

<sup>6</sup>Closed June 27, 1947.

Source: Questionnaires returned to Territorial Department of Health, Division of Hospital Planning, 1948.



Table 61  
ESTIMATED METROPOLITAN AND NON-METROPOLITAN POPULATION  
TERRITORY OF HAWAII, 1928-1948

YEAR (JULY 1)	TOTAL POPULATION	METROPOLITAN <sup>1</sup>	NON-METROPOLITAN <sup>2</sup>
1928	348,767	125,850	222,917
1929	357,649	129,425	228,224
1930	370,620	153,340	217,280
1931	375,211	156,924	218,287
1932	380,507	159,468	221,039
1933	380,211	157,919	222,292
1934	378,948	157,385	221,563
1935	384,437	159,223	225,214
1936	393,277	161,760	231,517
1937	396,715	163,465	233,250
1938	411,485	169,532	241,953
1939	414,991	171,176	243,815
1940	426,654	197,627	229,027
1941	465,339	222,825	242,514
1942	474,351	229,415	244,936
1943	483,363	236,005	247,358
1944	492,379	242,596	249,783
1945	502,122	289,341	212,781
1946	519,503	295,632	223,871
1947	525,477	298,024	227,453
1948	540,500	306,749	233,751

<sup>1</sup>The cities of Honolulu and Hilo.

<sup>2</sup>Oahu exclusive of Honolulu city, Hawaii exclusive of Hilo, and all of Maui, Kauai, Molokai, Lanai, Niihau and Kahoolawe.

Source: Computed from data supplied by the Territorial Department of Health. See *Business Service* (Chamber of Commerce of Honolulu), Vol. 5, No. 9 (September 1948), p. 3, for detailed listing.

Table 62  
INTERCORRELATIONS OF MEASURES OF SERVICE AND FACILITIES  
THIRTY GENERAL AND ALLIED HOSPITALS, TERRITORY OF HAWAII, 1947<sup>1</sup>

CORRELATED ITEM	POPULATION	BEDS	OCCUPANCY	CENSUS	ADMISSIONS	DAYS STAY	COST PER PATIENT DAY
Population of city	...	.62	.46	.59	.63	-.40	.19
Bed capacity	.62	...	.56	.93	.93	-.16	.46
Percentage occupancy	.46	.56	...	.78	.70	.14	.22
Average census	.59	.93	.78	...	.97	-.04	.46
Admissions	.63	.93	.70	.97	...	-.25	.48
Average days stay	-.40	-.16	.14	-.04	-.25	...	-.20
Cost per patient day	.19	.46	.22	.46	.48	-.20	...

<sup>1</sup>Correlation from ranks (rho). Includes the twenty-eight civilian general hospitals for which complete data were available, plus Kauaikeolani Children's Hospital and Kapiolani Maternity and Gynecological Hospital.

Source: Based on data from Territorial Department of Health (see Table 52).



















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